

# **MALABAR CANCER CENTRE**

## **(POST GRADUATE INSTITUTE OF ONCOLOGY SCIENCES & RESEARCH)**

*(An autonomous institution under Government of Kerala)*

MOOZHICKARA (P.O), THALASSERY, KANNUR DIST., KERALA-670103



# **ANNUAL REPORT**

## **2024-25**



## VISION

**The development of an exponentially progressing apex institution in oncology with equal emphasis on clinical care, oncology-related education, and multifaceted research**

## MISSION

**Non-compromising professionalism and quality in cancer treatment, research, and education**

## SERVICE STANDARDS

- ✓ **Quality in health care delivery**
- ✓ **Accountability in the Governance from top to bottom**
- ✓ **Maintaining a patient-centred clinical care**
- ✓ **Effective communication**
- ✓ **Internal customer satisfaction**

## UNIQUE ACHIEVEMENTS

- ✚ First Government owned hospital in Northern Kerala to start Bone Marrow Transplantation.
- ✚ The only Government centre performing pediatric transplants
- ✚ First Cancer Centre in Northern Kerala to acquire High end multiple energy linear accelerator with FFF technology.
- ✚ First Cancer Centre in Northern Kerala to acquire Blood Irradiator.
- ✚ First cancer centre in Kerala to Start Cancer Genetics Clinic
- ✚ First Cancer centre in India to develop, test and implement E-Palliative care.
- ✚ First Cancer Centre in South India to be a PAIN FREE HOSPITAL
- ✚ First institution in Kerala to acquire and use Robotic biopsy and intervention radiology assistance system
- ✚ First Cancer centre in Northern Kerala to introduce High end Dual Energy Linear Accelerator with VMAT capability in Public sector.
- ✚ F-18 PSMA scan performed first time in Kerala
- ✚ The first under Government Sector to launch Bone Marrow Donor Registry in India.
- ✚ Plaque brachytherapy started for the first time in Kerala for eye cancers.
- ✚ The second government institution in India has commenced the CAR-T Cell Therapy procedure.

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## GOVERNING BODY MEMBERS

1	Chief Minister of Kerala	Chairman
2	Minister for Health & FW, Kerala.	Vice-Chairman
3	Minister for Electricity, Kerala	Alternate Vice-Chairman
4	Secretary, Department of Finance, Kerala	Member
5	Secretary, Department of Power, Kerala	Member
6	Vice Chancellor-Kannur University	Member
7	Secretary, Department of Health & FW, Kerala	Member
8	An eminent Medical Scientist	Member
9	Secretary, Department of Science, Technology & Environment	Member
10	One nominee of the Ministry of Health, Government of India	Member
11	Principal, Medical College, Kozhikode	Member
12	Secretary- Planning Department, Kerala	Member
13	Director- Rajiv Gandhi Centre for Bio technology, Trivandrum	Member
14	Director of Medical Education, Director of Medical Education, Trivandrum	Member
15	Director, Malabar Cancer Centre, Thalassery	Member & Secretary to Governing Body
16	M.L.A. of the Thalassery constituency	Member
17	President, District Panchayat, Kannur District	Member
18	Chairman, Thalassery Municipality, Thalassery	Member
19	A public man from North Malabar region(to be nominated by Government of Kerala)	Member
20	One Head of the Department, nominated from Malabar Cancer Centre, Thalassery, by the Government.	Member
21	One nominee of the CHARITABLE SOCIETY established for rehabilitation and financial assistance for poor cancer patients	Member
22	Principal/Chief Executive Officer of Medical College, Pariyaram	Member
23	Director, Regional Cancer Centre, Trivandrum	Member
24	Director, Cochin Cancer & Research Centre, Kochi	Member

## EXECUTIVE COMMITTEE MEMBERS

1	Secretary, Health & Family Welfare Department	Chairman
2	Secretary, Finance Department	Member
3	Secretary, Planning and Economic Affairs Department	Member
4	Secretary, Power Department	Member
5	MLA of the Constituency in which MCC is situated	Member
6	Director of Medical Education	Member
7	Chairman - Thalassery Municipality	Member
8	Director, Regional Cancer Centre	Member
9	Director- Cochin Cancer Centre and Research Centre, Kochi	Member
10	Director, Malabar Cancer Centre(PGIOSR)	Member/Convenor

**EXECUTIVE COMMITTEE MEETINGS CONDUCTED DURING THE PERIOD**

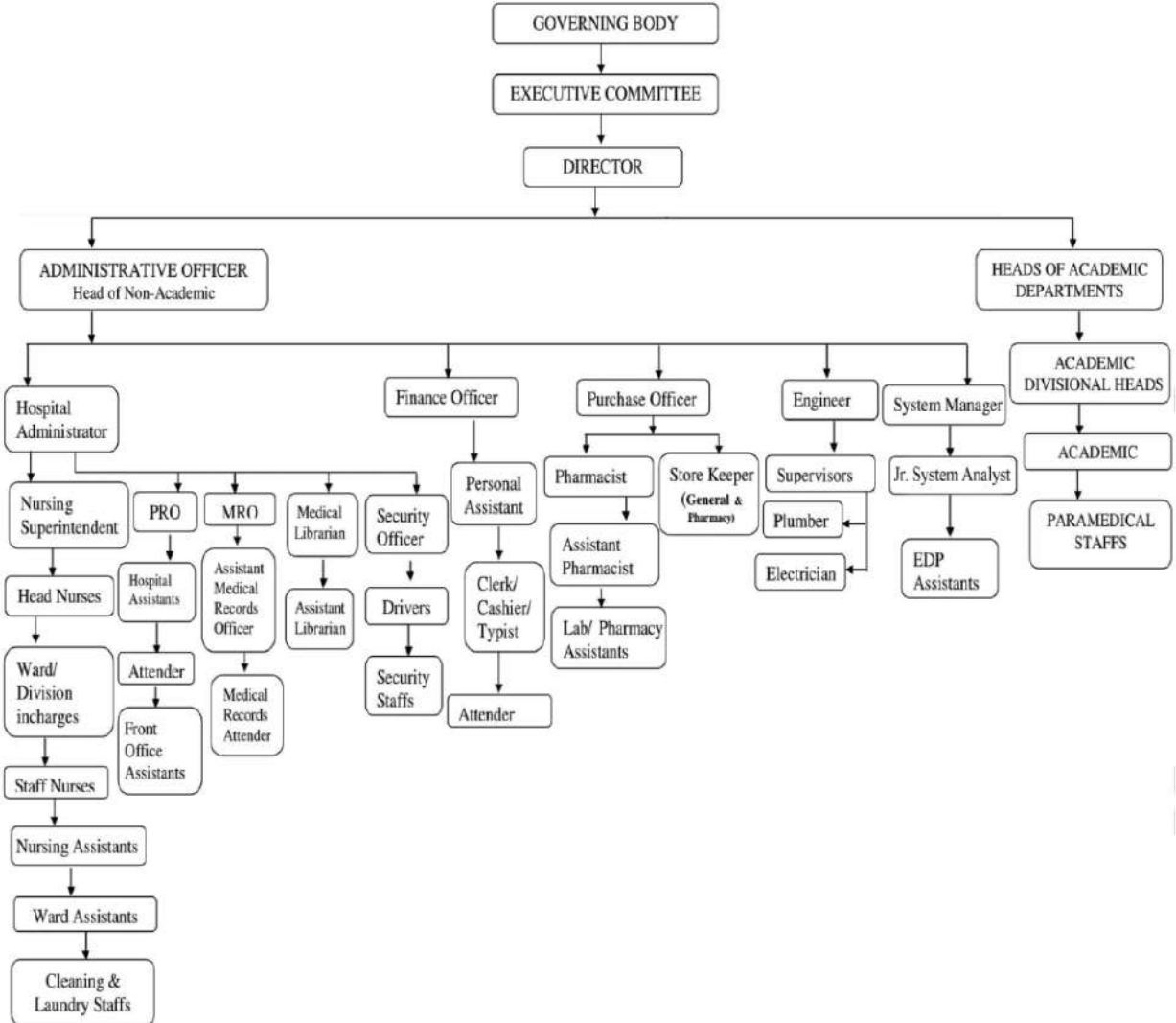
<b>Meeting no</b>	<b>Date</b>	<b>Venue</b>
Meeting no.89	06.06.2024	Discussion room, MCC-PGIOSR, Thalassery
Meeting no.90	24.10.2024	Conference hall, MCC-PGIOSR, Thalassery

<b>Sl. no</b>	<b>Attendees</b>	<b>EC meeting numbers</b>	<b>Designation</b>
1	Dr.Rajan.N.Khobhragade IAS,	89 & 90	Additional Chief Secretary to Government, Health & Family Welfare Department
2	Adv.Shri.A.N.Shamseer,	89 & 90	Hon'ble Speaker of Kerala Legislative Assembly and MLA of Thalassery Constituency
3	Smt.Jamuna Rani	89 & 90	Chairperson, Thalassery Municipality
4	Smt.S.V.Kala	89 & 90	Special Secretary, Department of Finance
5	Smt.Shiny George,	89	Additional Secretary, Department of Planning & Economic Affairs
	Shri. C.M.Ajayamohan,	90	Special Secretary, Department of Planning & Economic Affairs
6	Smt.C.S.Preethi,	90	Joint Secretary, Department of Power
7	Dr.Thomas Mathew,	89 & 90	Director of Medical Education
8	Dr.Rekha.A.Nair,	89 & 90	Director, Regional Cancer Centre, Thiruvananthapuram
9	Dr.P.G.Balagopal,	89	Director I/c, Cochin Cancer & Research Centre, Kochi
	Dr.P.G.Balagopal,	90	Director, Cochin Cancer & Research Centre, Kochi
10	Dr.B.Satheesan	89 & 90	Director-Malabar Cancer Centre, Thalassery

# ORGANOGRAM



## MALABAR CANCER CENTRE



## FROM DIRECTOR'S DESK

*“Progress is born of collaboration, compassion, and courage—together, we strive to make cancer care more humane, accessible, and hopeful.”*

It is with great pride and a profound sense of responsibility that I present the Annual Report for the year 2024–2025 of Malabar Cancer Centre (Postgraduate Institute of Oncology Sciences and Research), Thalassery. This year has been one of significant transformation, marked by remarkable progress across clinical services, infrastructure development, research, and academic endeavors. Our mission to deliver comprehensive, patient-centered cancer care has been consistently strengthened through innovation, collaboration, and commitment to quality.

A major highlight of the year was conferring the prestigious NABH Digital Health Standards – Silver Level Accreditation. This could be achieved with the existing NIC software and others developed by with the inputs of the in-house team. This recognition reaffirms our dedication to embracing cutting-edge digital technologies and aligning our processes with the highest standards of patient safety, data integrity, and system interoperability. Through the support of National Cancer Grid, the institution has initiated its journey to become a paperless and queue less hospital through comprehensive digital solution for the entire hospital and it includes electronic medical records incorporated hospital management system. It underscores MCC’s forward-looking vision in digital health integration and quality assurance.

Among the most transformative developments was the installation of the Robotic Surgical System, enabling our surgical oncology team to undertake highly complex procedures with enhanced precision, minimal invasiveness, and faster patient recovery. Multiple tumors in the same patient could be resected with out additional cost and incisions. Complementing this advancement, MCC proudly introduced CAR T-cell Therapy for hematologic malignancies—a revolutionary and personalized form of immunotherapy that modifies a patient’s own immune cells to fight cancer. MCC is the second government institution in India to offer this cutting-edge treatment, which represents a paradigm shift in the management of refractory and relapsed blood cancers.

Infrastructure development remained a focal area this year. The new Academic and Treatment Block was inaugurated, providing expanded capacity for patient care and academic activities in a contemporary setting. Simultaneously, several critical facilities—including the Laboratories, Blood Bank, Pharmacy, and Operation Theatre Complex—were comprehensively renovated, ensuring improved efficiency, safety, and comfort for both patients and healthcare professionals. New specialized services such as the Sleep Clinic and the Oncofertility Clinic were launched, catering to emerging and long-term needs of cancer patients, particularly in areas of survivorship and quality of life.

To foster translational innovation, the institution could establish MIINT (Malabar Innovation Incubator for Translational Research)—a first-of-its-kind initiative in the region. This platform promotes oncology-focused startups, supporting entrepreneurs and clinician-scientists in transforming innovative ideas into viable healthcare solutions. MIINT is envisioned to become a hub for collaborative research and product development in oncology. The facility is first of the

kind in any government medical institution in the state. This prestigious endeavor was inaugurated by Hon'ble Chief minister Shri.Pinarayi Vijayan.

On the academic front, the year witnessed significant expansion. In addition to our continuing DNB and fellowship programs, we commenced new DrNB courses in Medical oncology and Gynaecologic Oncology. These academic advancements are bolstered by robust research activity, including numerous peer-reviewed publications, multicenter clinical trials, and investigator-initiated studies, firmly establishing the institution as a center of academic and scientific excellence.

In terms of service utilization, it has registered 8,214 new cancer cases and recorded 1,20,205 total patient visits. A total of 6,406 patients were admitted for inpatient care. Our surgical team performed 3,334 surgeries, including 2,396 major procedures, while 2,354 endoscopic procedures were conducted. The medical oncology division administered 22,513 chemotherapy sessions, and the radiation oncology department delivered 1,163 curative and 1,046 palliative treatments( patient numbers), along with 577 brachytherapy sessions.

Our Community Oncology Department remained steadfast in its outreach mission, organizing 43 volunteer training programs and 47 cancer awareness classes. These initiatives are essential in fostering cancer awareness, promoting early detection, and building an informed and proactive society. The department was actively involved in the innovative campaign launched by the Government- Arogyam Anandam Akattam Arbhutham.

As MCC(PGIOSR) charts its course for the coming years, the focus will be on establishing itself as a hub of excellence in translational oncology, fostering multidisciplinary collaborations, and scaling up access to advanced therapies such as immunotherapy and precision-guided interventions. Continued investment in technology, skill development, and community partnerships will be key to ensuring that cancer care remains not only evidence-based and innovative but also inclusive and patient-centered.

The unwavering efforts of the medical, scientific, academic, and administrative teams at Malabar Cancer Centre have been instrumental in driving the institution's progress. The continued support of the Government of Kerala, academic collaborators, funding agencies, and other stakeholders is gratefully acknowledged. Above all, appreciation is extended to the patients and their families for their resilience and trust throughout the journey.

Together, let us advance the frontiers of oncology through evidence-based practice, innovation, and inclusivity—ensuring access to quality cancer care for all.

**Dr. Satheesan Balasubramanian**

**MALABAR CANCER CENTRE**  
**(POST GRADUATE INSTITUTE OF ONCOLOGY SCIENCES AND**  
**RESEARCH), THALASSERY**

**Malabar Cancer Centre (Post Graduate Institute of Oncology Sciences & Research)[MCC(PGIOSR)], Thalassery** is an autonomous institution under Health and Family Welfare Department, Government of Kerala, started with an aim to establish a comprehensive cancer centre, providing the much-required oncology care to the population of Northern region of Kerala and neighboring parts of Karnataka and Tamil Nadu states. The main objective of the centre is not only to provide comprehensive cancer care but also to develop as a Research and Training Centre of international standards. A society named Malabar Cancer Centre Society was registered under Societies Registration Act XXI of 1860 with the above aims and clinical work in Malabar Cancer Centre started from March 2010 onwards. The control and management of the Society are vested in the Governing Body consisting of 23 members with the Honorable Chief Minister of Kerala as the Chairman. The routine activities and functions of the Centre are supervised by the Executive Committee, with the Secretary, Department of Health and Family Welfare, Government of Kerala being the Chairperson of the Committee. The members in the Governing Body and Executive Committee are functioning by virtue of their official positions.

Malabar Cancer Centre is providing a full spectrum of oncological care as an autonomous not-for-profit institution funded by the State Government and other sources. In 2022, the Government upgraded the centre as Malabar Cancer Centre (Post Graduate Institute of Oncology Sciences & Research). The center is located five kilometers from the town on a picturesque hilltop in Kodyeri, Thalassery Municipality. Currently, MCC(PGIOSR) has 353 operational beds in total.

The institution is a tertiary cancer centre that renders its service to society with equal thrust on clinical and oncology-related education research and Clinical care Oncology services. It is being developed as a postgraduate institute of oncology sciences and research. The Kerala University of Health Science and Kannur University have designated the Malabar Cancer Center as a Research Institute. The institute has grown to possess highly sophisticated facilities to provide cancer care.

## LANDMARKS

<b>Year</b>	<b>Landmark</b>
1998	Formation of Malabar Cancer Centre Society
2001	Clinical services started
2004	Started Blood bank services
2005	4 Slice CT Scanner and Telecobalt radiotherapy unit
2008	Administration of MCC was transferred to Health and Family welfare department from Power Department
2009	Bed strength increased from 40-100, Home care services were started
2009	Limb salvage surgery, second operation theatre, nurse's hostel, Pain free hospital.
2009	Dormitory for Patients- MPLAD of Smt. Sathi Devi MP
2010	Dual energy linear accelerator with VMAT, Hematology services, Hospital based cancer registry, Community oncology department, Doctor's quarters, BSc Medical Radiology
2011	Regular Pathology services, upgraded biochemistry lab.
2011	High end Dual energy linear accelerator with VMAT installed
2012	Started Department Library system
2012	Cryostat installed and Frozen section studies started
2013	Bone Marrow Transplantation Unit was established
2013	First Autologous Hemopoetic Stem Cell Transplantation was performed
2013	First Allogenic Hemopoetic Stem Cell Transplantation was performed
2014	Pediatric bone marrow transplantation, Population based cancer registry including Kannur, Kasargode and Mahe districts
2014	RFID System with CCTV Surveillance camera Implemented in Medical library
2014	Digital Xray machine
2014	1.5 Tesla MRI
2014	4D CT scanner
2014	ETO sterilizer

2015	First Pediatric Hemopoetic Stem Cell Transplantation was performed
2015	Second Linear accelerator with FFF technology- first of the kind in Government sector
2015	Blood Irradiator
2016	Biometric Punching system started
2016	Started various fellowship programs including ‘Fellowship in Hemato-oncology and Bone marrow Transplantation ‘training programme.
2017	First Matched Unrelated Donor (MUD) allogenic Hemopoetic Stem Cell Transplantation
2017	Cancer genetics laboratory with Next Generation Sequencer(NGS) was established
2017	BMT unit shifted to new block (4 bedded state of the art units)
2017	Separate pediatric oncology division started
2017	Parent orientation programme in Pediatric oncology introduced
2017	Mutation Analysis for various cancers
2018	Fluorescence in Situ Hybridization (FISH)
2018	State of art Proteomics laboratory is established
2018	Started immunotherapy in solid tumors, Population Based Cancer Registry is expanded to Kozhikode, Wayanad, Malappuram, Thrissur, and Palakkad
2018	Conventional radiotherapy simulator –Imagin (Panacea) was installed
2018	Hyperthermic Intraperitoneal Chemotherapy (HIPEC) was started
2019	First Pediatric Matched Unrelated Donor (MUD) allogenic Hemopoetic Stem Cell Transplantation
2019	Intervention radiology started
2019	New Cobalt Radio therapy machine installed to replace the old one
2020	NABH accreditation
2020	Started E-office software and E- Sanjivani online OPD
2020	Brachytherapy: New brachytherapy machine was installed 2020. Flexitron (Elekta-Nucletron)

2020	64 Slice fluoro-CT scan was installed
2020	Paediatric Haemato-ocology Block Inaugurated
2020	Portable Digital Xray unit
2021	Stated Nuclear medicine department-PET CT scan, SPECT CT
2022	2022 Started DOTA Therapy, PSMA Therapy 2022
2022	Upgraded to Postgraduate Institute of Oncology Sciences & Research
2022	Ocular oncology division was started, first retinal artery intraarterial chemotherapy was performed
2022	Endoscopic Ultrasonography unit/EBUS/EUS installed and started functioning
2023	Surgical Operating Microscope
2023	3D laparoscopy system installed
2023	Dexa Scan
2023	Retcam for ocular oncology
2023	Second Cryostat machine
2023	NABL Accreditation for all labs of MCC
2023	Started Total Body Irradiation for Bone marrow transplantation
2024	Plaque brachytherapy stated for the first time in Kerala for eye cancers
2024	NABH Re-accreditation
2024	Robotic Surgical Systems
2024	NABH Digital Health Standards- Silver level accreditation
2024	CAR-T Cell Therapy procedure
2025	New Treatment and Academic Block Inaugurated
2025	Malabar Cancer Centre Innovation Incubation Nest (MIINT) for Start-Ups
2025	Renovated Labs, Blood bank, Pharmacy and Operation Theaters

## RECOGNITIONS

- 1) **Chief Minister's Awards for Innovation in Public Policy-2015 Category: Personnel Management (I-Prize)**
- 2) **Kerala State Energy Conservation Award, 2016 (I-Prize)**
- 3) **National Healthcare Excellence Awards, 2016 Category: Best Single Speciality Hospital (Oncology)**
- 4) **Kerala State Pollution Control Board Award 2017**
- 5) **Kerala State e-Governance Awards 2016 & 2017**
  - a. **e-Palliative Care Project won II Prize in e-Citizen Service Delivery Category**
  - b. **Aware & Awake Project won II Prize in social media& e-Governance Category**
- 6) **Kerala State Pollution Control Award – 2018.**
- 7) **Kerala State e-Governance Awards 2019-20, 2020-21. OPPAM Initiative won Third Prize in social media & e-Governance Category and Second Prize in Innovations in Covid Pandemic Management**
- 8) **NABH Accreditation-2020**
- 9) **DSIR-SIRO Certification**
- 10) **Gold Certification (B PMJAY Quality Certification programme is a joint initiative by NHA and Quality Council of India)-Malabar Cancer Centre is the first Government hospital in Kerala to get a Gold Quality Certificate -2022**
- 11) **NABL Accreditation for all laboratories-2023**
- 12) **Eat Right Campus certification for MCC Canteen 2023 (FSSAI)**
- 13) **KUHS Accreditation Grade A- 2023**
- 14) **NABH Digital Health Standards- Silver level accreditation in 2024.**

## AWARDS

- 1) Dr.Greeshma K.E received first prize in poster presentation “Analysis of radiation dose received by heart in patients with left sided breast cancer receiving adjuvant radiotherapy” at AROICON 2024 held at Mangaluru from 29/11/24 to 01/12/24.
- 2) Dr.Abhilashmenon received 2nd prize in oral presentation”Effectiveness and toxicity profile of reduced dose sorafenib for the treatment of HCC:A retrospective single Institutional experience at ICON 2024 held at Mumbai from 29/11/24 to 01/12/24.
- 3) Dr.SampaChoudhury,DMOncopathology Resident received 1st prize in quiz competition (Grossing techniques of oncosurgeryspecimens)at APCON 2024 held at Cuttack from 11th to 15th December 2024.
- 4) Dr.Soundarya Samskruthi Koyya,DMOncopathology Resident received 2nd prize in quiz competition (Grossing techniques of oncosurgeryspecimens)at APCON 2024 held at Cuttack from 11th to 15th December 2024.
- 5) Dr.Hridya received a travel grant award of \$500 at the biennial conference of ISOO
- 6) Mrs. Jisha Abraham, Lecturer, Pscyhc-Oncology received Best Poster Award at Asia Pacific Psycho Oncology Network (APPON) 7 on 18-01-2025 at WestinVelachery, Chennai

## HIGHLIGHTS AND PROFILE AT GLANCE

SL NO	PROFILE	TOTAL
1	Total New Registrations	8214
2	Follow up visits	113791
3	Total patients visits	120205
4	Total in patients	6406
5	Total Deaths	187

SL NO	SURGERY	TOTAL
1	Major Surgeries	2396
2	Minor Surgeries	938
	<b>Total Surgeries</b>	<b>3334</b>
3	Endoscopies	2354

SL NO	CHMOG	TOTAL
1	OPD Attendance (Clinical Hematology +Pediatric Oncology)	19580
2	OPD Attendance (Medical Oncology + Solid Tumor Division)	47974
3	New Case in OPD (Clinical Hematology+ Pediatric Oncology)	1063
4	Day Chemo Administered	22513

SL NO	RADIATION ONCOLOGY	TOTAL
1	Curative RT	1163
2	Palliative RT	1046
3	Brachytherapy	577
4	4DCT Simulation	2739

SL NO	IMAGING	TOTAL
1	MRI scans	1833
2	CT scans	5500
3	Mammography	3792
4	Ultrasound	3195

SL NO	ONCOPATHOLOGY	TOTAL
1	Biopsy small	2695
2	Biopsy Radical	1701
3	Biopsy Second Opinion	3050
4	Fine Needle Aspiration Cytology(FNAC)	266
5	FNAC with Cell Block	700
6	FNAC Second Opinion	294
7	Effusion Fluid Cytology	349
8	Effusion Fluid Cytology with Cell Block	387

9	Peripheral Smear	1496
10	Gynaec cytology	290
11	Bone marrow aspiration	827
12	Bone marrow (BM)biopsy	801
13	BM Aspiration 2nd opinion	137
14	BM biopsy 2nd opinion	133
15	Flow Cytometry	556
16	Frozen sections	1142
	<b>Total No Reports Issued</b>	<b>12886</b>

<b>SL. NO</b>	<b>CYTOGENETICS AND MOLECULAR ONCOLOGY</b>	<b>TOTAL</b>
1	BCRABL Quantative assays	381
2	BCRABL Qualitative assays	46
3	EGFR	112
4	PML RARa	37
5	DPYD Mutation	276
6	JAK2 Mutation	31
7	AML Panel	520
8	ALL Panel	280
9	FISH BCRABL	10
10	FISH PML RARa	1
11	FISH HER2	37
12	FISH SS18	9
13	FISH ALK	1
14	FISH ROS	1
15	FISH EWSR	3
16	Myeloma Panel	300
17	FISH Triple hit	90
18	MPN Panel	328
	<b>Total</b>	<b>2463</b>

<b>SL NO</b>	<b>COMMUNITY ONCOLOGY</b>	<b>TOTAL</b>
1	Volunteer Training Programme	43
2	Cancer Awareness Class	47

<b>SL NO</b>	<b>NUCLEAR MEDICINE</b>	<b>TOTAL</b>
1	SPECT /CT	196
2	PET / CT	1024

<b>SL NO</b>	<b>BLOOD BANK</b>	<b>TOTAL</b>
1	Whole Blood Donors	3766
2	Flow Cytometry	103
3	Blood Donation Camps	42

SL NO	UNDERGRADUATE COURSE	DURATION ( Yrs)/ SEATS
1	Medical Radiological Technology	4yrs/25
2	Nursing	4yrs/40

SL NO	NMC COURSE	DURATION( Yrs)/ SEATS
1	DM Oncopathology	3yrs/2

SL NO	DNB /DrNB COURSE	DURATION(Yrs)/ SEATS
1.	Surgical oncology	3/2
2.	Clinical hematology	3/2
3.	Medical Oncology	3/2
4.	Gynecological Oncology	3/2
5.	Radiation Oncology	3/2

SL NO	FNB /DIPLOMA COURSE	DURATION(Yrs)/ SEATS
1	Pediatric Hemato Oncology	2/2
2	Head and Neck Oncology	2/2
3	DMRD	2/2

SL NO	FELLOWSHIP PROGRAMME	DURATION(Yrs) / SEATS
1	Gynaecologic Oncology	2/2
2	Hemato-Oncology &BMT	1/2
3	Gastrointestinal Oncology	1/1
4	Aphaeresis Medicine	1/2
5	Oncopathology	1/1
6	Oncology Nutrition	1/3
7	Molecular Pathology	1/1
8	Psycho Oncology	1/2
9	Medical Social Worker	1/1
10	Clinical Research	2/1

SI. NO	EXTERNAL COMMITTEE	NO.OF MEETINGS CONDUCTED
1	Scientific Advisory Committee (SAC)	01
2	Institutional Ethics Committee (IEC)	04
3	Intra Mural Research Fund Review Committee	01

SI. NO	INTERNAL COMMITTEE- ACADEMIC	NO.OF MEETINGS CONDUCTED
1	Academic Council	12
2	Institutional Review Board – Scientific Committee (IRB-SRC)	22
3	Academic Standing Committee	02
4	Academic Monitoring Cell	12

SI. NO	INTERNAL COMMITTEE- ADMIN	NO.OF MEETINGS CONDUCTED
1	HOD Committee	05
2	Admin Committee	46
3	Hospital Management Committee	12
4	Nursing Administration	03
5	Scheme Review Committee	09
6	Biomedical Waste Management committee	08
7	Pharmaco Therapeutics Committee	05
8	Hospital Blood Transfusion Committee	04

SI. NO	OTHER COMMITTEE	NO. OF MEETINGS CONDUCTED
1	Hospital Infection Control	12
2	Medical Record Audit Committee	07
3	Facility Management & Safety Committee	01
4	Clinicians Committee	12
5	Grievance Handling Committee	01
6	Internal complaints Committee	04
7	Quality Cell	09
8	Code Blue committee	03
9	Radiation Safety committee	04

SCHEME DETAILS		
Schemes	Unique Patient beneficiaries	Amount Utilized in lakhs
Karunya Arogya Suraksha Pathathi	4753	469 Lakhs
Karunya Benevolent Fund	1574	120 Lakhs
Karunya Arogya Suraksha Pathathi - out of package	2878	98.45 Lakhs
Karunya Benevolent Fund - Out Of Package	1094	51.8 Lakhs
CSS	NIL	NIL
ESI 2021	185	45.21 Lakhs
CST	472	17.76 Lakhs

Medisep Kerala	210	18 Lakhs
PMNRF	445	13.97 Lakhs
Thalolam	NIL	NIL
Medisep Kerala Out Of Package	134	4.67 Lakhs
Kerala Social Security Mission Assistance	6	10.56 Lakhs
Cope with Cancer	45	10.12 Lakhs
Arogyakiranam 2024 IP High End Treatment	134	19 Lakhs
Sneha Santhwanam	17	1.13 Lakhs
Arogyakiranam 2024 Op	487	20.79 Lakhs
Sahayika Chennai	2	0.05 Lakhs
ThanalVatakara	NIL	NIL
Bairooha Foundation	26	0.3 Lakhs
Care and Cure Foundation	18	0.15 Lakhs
<b>Grand Total</b>	<b>12480</b>	<b>900.96 Lakhs</b>

## DEPARTMENTS AND DIVISIONS

<b>ACADEMIC DEPARTMENTS</b>	
<b>1</b>	<b>DEPARTMENT OF ANAESTHESIOLOGY</b>
<b>2</b>	<b>DEPARTMENT OF CANCER PALLIATIVE MEDICINE</b>
<b>3</b>	<b>DEPARTMENT OF CANCER REGISTRY AND EPIDEMIOLOGY</b>
<b>3.1</b>	MEDICAL RECORDS DIVISION
<b>4</b>	<b>DEPARTMENT OF CLINICAL HAEMATOLOGY AND MEDICAL ONCOLOGY</b>
<b>4.1</b>	CLINICAL HEMATOLOGY DIVISION
<b>4.2</b>	MEDICAL ONCOLOGY DIVISION
<b>4.3</b>	PAEDIATRIC ONCOLOGY DIVISION
<b>5</b>	<b>DEPARTMENT OF CLINICAL LABORATORY SERVICES AND TRANSLATIONAL RESEARCH</b>
<b>5.1</b>	BIOCHEMISTRY DIVISION
<b>5.2</b>	CANCER GENETICS DIVISION
<b>5.3</b>	MICROBIOLOGY DIVISION
<b>5.4</b>	MOLECULAR ONCOLOGY DIVISION
<b>5.5</b>	ONCO-PATHOLOGY DIVISION
<b>5.6</b>	TRANSFUSION MEDICINE DIVISION
<b>6</b>	<b>DEPARTMENT OF DENTISTRY AND REHABILITATION</b>
<b>6.1</b>	DENTISTRY DIVISION
<b>6.2</b>	REHABILITATION ONCOLOGY DIVISION
<b>7</b>	<b>DEPARTMENT OF NUCLEAR MEDICINE</b>
<b>8</b>	<b>DEPARTMENT OF PREVENTIVE AND COMMUNITY ONCOLOGY</b>
<b>9</b>	<b>DEPARTMENT OF RADIATION ONCOLOGY</b>
<b>9.1</b>	RADIATION ONCOLOGY DIVISION
<b>9.2</b>	RADIATION PHYSICS DIVISION
<b>10</b>	<b>DEPARTMENT OF RADIOLOGY/RADIO-DIAGNOSIS</b>
<b>10.1</b>	INTERVENTIONAL RADIOLOGY DIVISION
<b>11</b>	<b>DEPARTMENT OF RESPIRATORY MEDICINE &amp; CRITICAL CARE</b>
<b>11.1</b>	CRITICAL CARE DIVISION

11.2	PULMONOLOGY DIVISION
12	<b>DEPARTMENT OF SURGICAL ONCOLOGY</b>
12.1	GENERAL SURGICAL ONCOLOGY DIVISION
12.2	GYNAECOLOGY/ GYNAECOLOGIC ONCOLOGY DIVISION
12.3	HEAD AND NECK ONCOLOGY DIVISION
12.4	OCULAR/OPHTHALMIC ONCOLOGY DIVISION
<b>INDEPENDENT ACADEMIC DIVISIONS UNDER DIRECTOR</b>	
1	DIVISION OF CLINICAL RESEARCH AND BIOSTATISTICS
2	DIVISION OF PSYCHO-ONCOLOGY
<b>NON-ACADEMIC DEPARTMENTS</b>	
1	<b>DEPARTMENT OF ONCOLOGY NURSING</b>
1.1	CSSD UNIT
1.2	NURSING SERVICES DIVISION
2	<b>DEPARTMENT OF GENERAL ADMINISTRATION</b>
2.1	ACADEMIC DIVISION & LIBRARY AND INFORMATION SCIENCE
2.2	ACCOUNTS DIVISION
2.3	GENERAL ADMINISTRATION DIVISION
2.4	HOSPITAL ADMINISTRATION DIVISION.
2.5	HUMAN RESOURCES AND ESTABLISHMENT DIVISION
2.6	PURCHASE/ STORES AND PHARMACY DIVISION
2.7	SECURITY DIVISION
3	<b>DEPARTMENT OF ENGINEERING AND MAINTENANCE</b>
3.1	ENGINEERING & MAINTENANCE DIVISION
3.2	BIOMEDICAL ENGINEERING DIVISION
<b>INDEPENDENT DIVISION UNDER DIRECTOR</b>	
1	DIVISION OF HEALTH INFORMATION TECHNOLOGY

## DEPARTMENT OF ANAESTHESIOLOGY

<b>HEAD IN CHARGE</b>	<b>DR. JASHMA.C MD, DNB. ASSOCIATE PROFESSOR</b>
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### INTRODUCTION

Department of Oncoanaesthesiology at Malabar Cancer Centre Hospital has been an integral part of the Institute from its very origin. It is committed to excellence in anaesthesia and perioperative care, educational activities and faculty development. Over the years, along with the development of medical sciences, the department has set up its own high standards in patient care, education and research. All clinical departments are anchored to this specialty. The department follows an integrated approach and standard protocols for patient care, education and research.

Department of oncoanaesthesiology started functioning from the year 2001. On January 13 2020 major OT complex started functioning after renovation work of OT-1 and OT-2.

Now Malabar Cancer Centre has three major operation theatres and a brachytherapy OT. The major OT Complex is designed with Air Handling Unit with laminar flow, HEPA filter and Temperature, Pressure, Humidity monitoring. Each major OT is equipped with Anaesthesia workstation, Pendant, Intubation Trolley, Drug Repository, Energy devices, Suction devices, stainless steel cupboard, stainless steel tables and trolleys.

Operations done in Malabar cancer centre are classified as

1. Very Major
2. Major
3. Less than Major

Non-operating room anaesthesia(NORA)

1. Cathlab procedures- radiofrequency ablation, microwave ablation
2. Linear Accelerator
3. 4D-CT planning under anaesthesia for pediatric cases
4. PET scan for pediatric cases
5. MRI under general anaesthesia for pediatric cases
6. CT-guided microwave ablation
7. Endobronchial ultrasound /endoscopic ultrasound procedures
8. Transarterial Chemoembolization.
9. Endoscopic Retrograde Cholangiopancreatography/ Percutaneous Transhepatic Biliary Drainage.

The surgical intensive care unit (ICU) of Malabar Cancer Centre (MCC) is situated within operation theatre complex. In our ICU, post-surgical patients and critically ill surgical patients are admitted. The unit has 8 beds. Our patient population includes those undergoing complex onco-surgical procedures including gastrointestinal, gynecologic, urologic, thoracic, orthopedic, head and neck, breast and micro vascular surgeries.

From admission to discharge, the patient and families are involved in all clinical decisions. Duty doctor and nursing personnel are available round the clock to address the physical and emotional needs of the patient and their family

### CURRENT FACILITIES

1. High-end Anaesthesia work station with electronic gas mixing, End Tidal gas monitoring.
2. Multipara monitors with cardiac output monitoring, Etco2, Spo2, Invasive and non-invasive blood pressure monitoring, temperature monitoring,CVP monitoring.
3. Syringe pumps, infusion pumps, fluid pressure bags and body/fluid warmers
4. Depth of anaesthesia monitoring- entropy,BIS
5. Neuromuscular transmission monitoring
6. Total Intravenous Anaesthesia , Target Controlled infusion and PCA pumps.
7. Ultrasound machine for central venous catheterization and regional anaesthesia
8. Nerve stimulator, manual jet ventilation catheter, high flow nasal cannula

### NEW SERVICES:

1.Robotic surgeries have been conducted since May 2024

### NEW EQUIPMENTS

1. Anaesthesia workstation care station 750 installed on 24/4/24
2. Anaesthesia workstation Mindray wato ex 65 pro and Multipara monitor Benevision N15 installed on 6/2/2025

### ACTIVITIES:

#### **DATA- MAJOR OPERATION THEATRE AND BRACHYTHERAPY OT**

<b>GA</b>	<b>GA +EB D</b>	<b>SAB</b>	<b>SHOR T GA</b>	<b>CSE B</b>	<b>GA+B LOC K</b>	<b>ED B</b>	<b>Nerve Block</b>	<b>SAB +GA</b>	<b>TOTAL</b>
1749	351	324	88	17	1	3	1	4	<b>2538</b>

### A.CLINICAL ACTIVITIES

<b>SL NO</b>	<b>PATIENT CATEGORY</b>	<b>TOTAL MAJOR OPERATION THEATRE AND BRACHYTHERAPY OT</b>
1	Adult	2425
2	Pediatric	113

### B.CLINICAL ACTIVITIES

<b>GA</b>	<b>SHORT GA</b>	<b>SAB</b>	<b>IV Sedation</b>	<b>MAC</b>	<b>TOTAL</b>
97	58	-	12	2	<b>169</b>

### Non Operating Room Anaesthesia(NORA)

<b>SL NO</b>	<b>PATIENT CATEGORY</b>	<b>TOTAL NO OF NORA CASES</b>
1	Adult	107
2	Pediatric	62

### **C.ACADEMIC ACTIVITIES**

<b>1. COURSES AND TRAINING PROGRAMS</b>					
<b>SL NO</b>	<b>NAME OF THE COURSE</b>	<b>DURATION</b>	<b>NUMBER OF CANDIDATES</b>	<b>ADMITTED IN THE CURRENT YEAR</b>	<b>TOTAL STUDENTS</b>
<b>1.</b>	Operation/Anaesthesia technician training-stipendary	<b>1year</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>2</b>	Operation/Anaesthesia technician training-non stipendary	<b>1 year</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Total Number of Trainees</b>					<b>4</b>

<b>2. ROUTINE ACADEMIC SESSIONS</b>		
<b>SL NO</b>	<b>ACADEMIC SESSION</b>	<b>NUMBER OF SESSIONS</b>
<b>1</b>	Topic discussions	<b>27</b>
<b>2</b>	Journal clubs	<b>8</b>
<b>3</b>	Protocol presentation	<b>3</b>

<b>3.OBSERVERSHIP:</b>			
<b>SL NO</b>	<b>COURSE</b>	<b>INSTITUTION</b>	<b>NUMBER OF OBSERVERS</b>
<b>1.</b>	<b>Diploma in Operation and Anaesthesia Technology</b>	AKG Memorial Hospital, Kannur	<b>1</b>
<b>TOTAL NO. OF OBSERVERS</b>			<b>1</b>

### **D.RESEARCH ACTIVITIES:**

#### **ONGOING PROJECT DETAILS:**

**1.Title:An audit of central venous catheter related infection in adultsurgical patients in a cancer centre. (PI:Dr Roopesh.S)**

This study is to analyze the incidence of catheter-related local infection (CRLI) and catheter-related bloodstream infection (CRBSI) of central venous catheters (CVC) in oncosurgical patients.

**2.Title:Anaesthesia challenges in children undergoing radiotherapy:Experiences from a cancer centre ( PI:Dr Roopesh.S)**

The objective of the study is to find out the incidence of adverse events noted during the radiotherapy treatment period for children under anaesthesia.

**3.Title Incidence and risk factors of Ventilator Associated Pneumonia in ICU in a Tertiary Cancer Centre: A Retrospective Study ( PI: Dr Sonali.O)**

Ventilator-associated pneumonia (VAP) refers to pneumonia that happens atleast 48 hours after endotracheal intubation or tracheostomy with no evidence of pneumonia at the time of intubation or at the time of admission or at the time of tracheostomy.It is a major nosocomial infection among intubated intensive care unit (ICU) patients, which requires purposeful study to reduce its morbidity and mortality. This study is being done to know the incidence and risk factors associated with Ventilator associated Pneumonia in Malabar Cancer Centre.

**4.Title: Incidence of perioperative complications after transhiatalesophagectomy and transthoracic esophagectomy in a tertiarycancer center:A Retrospective Study (PI: Dr Sonali.O)**

.There is ongoing debate as to whether transhiatal esophagectomy(THE)results in lower morbidity and mortality than transthoracicesophagectomy (TTE).This study aims at understanding the incidence of complications associated with THE and TTE.

**5.Title: Assessment of severity of postoperative pain in major abdominal oncosurgeries:A prospective observational study from a tertiary cancer centre (PI : Dr Sonali.O)**

This study assesses the severity of postoperative pain after major abdominal surgeries and its association with sleep pattern and demographic factors.

**6. Title: Comparison of size of double lumen tube used for lung isolation in Indian population with size predicted based on internationally derived formulas based on different parameters (PI: Dr Joona.P)**

This study aims to compare the size of dlt used for lung isolation with the dlt size predicted based on internationally accepted recommendations (Height, Tracheal diameter, Left main bronchial diameter)

**7. Title Incidence and predictors of Acute Kidney Injury after Cytoreductive Surgery - Hyperthermic Intraperitoneal Chemotherapy : A retrospective study (PI: Dr Namratha.D)**

The Study aims to determine the incidence of Acute Kidney Injury and the factors associated with it in patients undergoing CRS - HIPEC between January 2018 - December 2024

## **PROJECTS COMPLETED IN CURRENT YEAR:**

**1. Utility of thromboelastography in perioperative coagulation and its effect on the clinical outcome in patients undergoing major oncosurgery ( PI:Dr Jashma C)**

The study evaluated the utility of thromboelastography in assessing perioperative coagulation in adult patients undergoing major onco-surgery (>4 hours duration). TEG results have significant differences with post operative coagulation test results ( $p=0.046$ ). The length of stay was similar in patients with normal, hypercoagulable and hypocoagulable TEG tracing ( $p=0.72$ ). There was no association between mortality and coagulopathy by TEG ( $p=0.112$ ). The study concludes that TEG predicted coagulation abnormality in 75% patients intraoperatively and TEG-guided transfusion algorithms in perioperative period helped to reduce the coagulopathy risk and transfusion of blood components.

**2. A Retrospective observational study on the effect of Intraperitoneal Temperature during Hyperthermic Intraperitoneal Chemotherapy(HIPEC)and Postoperative Morbidity.(PI:Dr Jashma.Chandveetil)**

**The study explored** the effect of Intraperitoneal Temperature during HIPEC on Postoperative Morbidity and effect of Intraperitoneal Temperature on postoperative Complications. In this retrospective study, 56 patients were studied. In patients with postoperative morbidity mean intraperitoneal temperature was 41.96 and with no morbidity was 41.90 ( $P>0.05$ ) which was not statistically significant. In this study, the impact of intraperitoneal temperature during hyperthermic intraperitoneal chemotherapy (HIPEC) on postoperative morbidity was studied and there is no significant effect of intraperitoneal temperature variations on postoperative morbidity.

**3. Post operative stroke after head and neck oncosurgeries-A Retrospective analytic study (PI:Dr Roopesh.S)**

Available literature reports an incidence of stroke after head and neck surgeries ranging from 3.2% to 4.8%. The study was conducted to find out the incidence of postoperative stroke after head and neck oncosurgeries and to identify any risk factors. A total of 1311 patients were included. Post operative stroke was noted in 3 patients (0.2%). The mean age in the post operative stroke patients was  $62.3 \pm 0.5$  years. Majority of the patients in the study were males. Comorbidities noted were hypertension, diabetes mellitus, ischemic heart disease, chronic kidney disease, COPD and thyroid disorders. There was no statistical significance on comparison between gender, comorbidities and mean duration of surgery between the two groups. Incidence of post-operative stroke was 0.2% which was more in elderly patients. This is lower than the previously stated risks of 3.2% and 4.8%. This suggests that no special preoperative screening is needed, due to a lower risk.

**4. Title: Postoperative Respiratory Failure: Understanding The Importance Of Mechanical power. (PI:Dr Joona P)**

This study aimed to evaluate the relationship between mechanical power and the occurrence of postoperative pulmonary complications (PPCs) within the first seven days after surgery in adult patients undergoing mechanical ventilation during major abdominal oncologic surgery. For each

1 J/min rise in intraoperative mechanical power, the adjusted risk of developing respiratory failure postoperatively was 3.7 times higher as per regression analysis. Mechanical power of ventilation was found to have an independent association on the development of postoperative respiratory failure. This study explored the relationship between mechanical power applied to the lungs intraoperatively and development of respiratory failure postoperatively. Statistically significant association was seen between the two and mechanical power remained a strong predictor of pulmonary complications after elimination of confounding factors. This study throws light on the importance of optimising intraoperative ventilatory strategies to reduce postoperative pulmonary complications. Reducing the mechanical power intraoperatively may bring down postoperative pulmonary complications, but more definitive evidence is required.

### **CONFERENCE PRESENTATION**

1. Dr.Jashma C Presented Paper titled“Utility of Thromboelastography in perioperative Coagulation and its effect on the clinical outcome in patients undergoing major Oncosurgery” in National conference conducted by society of oncoanesthesia and perioperative care(SOAPCON 2024) at Bangalore on August 2024.
2. Dr.Jashma C Presented Paper titled “A Retrospective observational study on the effect of Intraperitoneal Temperature during HIPEC(Hyperthermic Intraperitoneal Chemotherapy) and Postoperative Morbidity,In National conference conducted by Indian society of Anaesthesiologists(ISACON 2024)at Patna November 2024

### **STAFF DETAILS**

<b>ACADEMIC</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Dr Jashma.C	Associate professor
2	Dr Roopesh s	Assistant professor
3	Dr Joon P	Assistant professor
4	Dr Sonali Opneja	Assistant professor
5	Dr Namratha Divakaran	Assistant professor
6	Dr Rahul K V	Assistant professor(Adhoc)
<b>NON-ACADEMIC</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Vipin.K	OT and Anaesthesia technician
2	Mayan John	Dialysis technician
3	Balu Krishnan S R	OT and Anaesthesia technician
4	Sreejesh P.P	OT and Anaesthesia technician
5	Anila P V	Critical care technician(contract basis)
6	Shaija .E	OT in-charge and Staff nurse
7	Sajna .N	Staff nurse
8	Jisha .P	Staff nurse
9	Maneesh P	Staff nurse
10	Roni Anthony	Staff nurse
11	Ansil .M	Staff nurse
12	Sreejith S	Nursing assistant

## DEPARTMENT OF CANCER PALLIATIVE MEDICINE

<b>HEAD IN CHARGE</b>	<b>DR.M.S.BIJI MBBS, MSCAPPLIED PSYCHOLOGY</b> <b>ASSISTANT PROFESSOR</b>
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### INTRODUCTION:

Since November 2002, the Centre has been offering Cancer Palliative Medicine services. The facility is authorized to possess and supply Oral Morphine. In addition to medical care, the Palliative Care Services provide support through counseling for patients and their families.

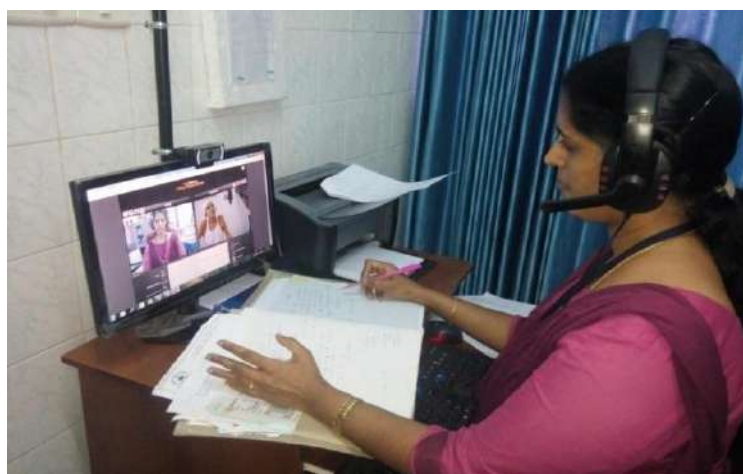
The Cancer Palliative Medicine Department encompasses inpatient, outpatient, and home care services. Additionally, two nurse-led clinics operate under this department: Stoma clinic and Lymphedema clinic. Home care services are provided three days a week, serving patients residing within a 35 km radius of MCC (PGIOSR).

### ACTIVITIES:

#### A, CLINICAL ACTIVITIES:

The Cancer Palliative Medicine Department offers services through outpatient clinics, inpatient units, and home-based care programs.

- a) **Outpatient care**
- b) **Inpatient care**
- c) **Homecare facility:** On June 20, 2009, a homecare facility for patients in need was established. Currently, 641 patients are enrolled in this service. The facility provides free medication and performs various procedures, including ascitic tapping, wound dressing, catheterization, and ryles tube insertion. Additionally, patients and their families receive psychological support. The homecare service is nurse-led and doctor-assisted. To enhance effectiveness, e-palliative medicine consultations are offered, allowing patients and relatives to directly interact with doctors, resulting in more satisfying homecare visits.



The department of Cancer Palliative Medicine operates two nurse-led clinics from 9am to 5pm on weekdays and 9am to 1.00pm on Saturdays.

- a) **Stoma clinic:** The stoma clinic offers preoperative counseling to all patients undergoing stoma surgery. Nurses address patient concerns about stomas, facilitating acceptance. Post-surgery, nurses visit patients in the ward to educate them on stoma care and the use of stoma bags.
- b) **Lymphedema clinic:** The lymphedema clinic manages patients who develop upper or lower limb lymphedema. Patients and their relatives are educated regarding the four fundamental aspects of lymphedema management: skin care, massage, exercises, and bandaging.

STATISTICS		
SL NO	FACILITIES	NUMBER OF PATIENTS
1.	In-patients	1884
2.	Out-patients	9148
3.	Homecare patients	148
4.	Stoma clinic	2672
5.	Lymphedema clinic	1209
6.	Counselling Out-patients	2043

MORPHINE CONSUMPTION (1 <sup>st</sup> April 2023-30 <sup>th</sup> March 2024)		
SL NO	TAB.MORPHINE STRENGTH	NUMBER
1.	10mg	91064
2.	20mg	12650

## **B. ACADEMIC ACTIVITIES:**

### **1. COURSES AND TRAINING PROGRAMS**

Sl no	Name of the course	Duration	Number of candidates	Admitted in current year	Total students
1.	Certificate Course in Essentials in Palliative care.(CCEPC)	8 weeks	15	7+3	10

2.	National Fellowship in Palliative Medicine(Clinical Posting)	10 days	10	1+1+1+1+1+1+1	7
3.	Foundation Course in Palliative Care(Clinical posting)	10 days	-	1+1	2
4.	IAPC Part B	10days	-	1+1	2
5.	DNB Residents(Clinical posting)	1 week	-	1+1	2
<b>Total Number of Students</b>					<b>23</b>

## 2. ACTIVITIES

(1) The final examination for the Jan 2024 IAPC batch was held on 06.04.24 in the IT Department as it is an online exam. 2 doctors(one in-house Dr.Hareni and one doctor from outside, Dr.Binu) appeared for the exam.

(2)As part of Palliative care policy of MCC,Staff Nurse Sindhu N R took a sensitization session on palliative care for the office staff On 06.04.24.

(3) Dr.Shahira K T posted for 10 days clinical posting as part of National Fellowship in Palliative Medicine from 15.04.24 to 25.04.24.



(4) Dr.Shahira K T took a session on "Palliative care for enhancing Quality of life" in the Palliative-Rehabilitation combined Academics on 18.04.24.

(5) Dr.Biji took a session on Palliative care, bereavement and hospice care for the DNB candidates 30.04.24.

(6) Dr.M.S.Biji took a session on "Managing aggressive and angry patients" in the Palliative-Rehabilitation combined Academics on 11.05.24

(7) As part of Palliative care policy of MCC,Staff Nurse Abhina S.S, took a sensitization session on palliative care for hospital Assistants on 25.05.24

(8) Dr.Shakkira posted for 10 days clinical posting as part of National Fellowship in Palliative Medicine from 03.06.24 to 13.06.24.

(9) Ms Sreya ,Fellow in Dietitics, posted for 2 days clinical posting as part of her Fellowship program on 05.06.24.

(10) Dr.M.S.Biji took a session on Introducing Palliative care for 4<sup>th</sup> semester Nursing students of INSeR and Koyili Nursing college. Around 60 students participated on 08.06.24.



**(11)** Staff Nurse Sheeja Nellikka took a session on Stoma care for 4<sup>th</sup> semester Nursing students of INSeR and Koyili Nursing college. Around 60 students participated on 08.06.24.



**(12)** Dr.Shakkira took a session on "Care of bedridden patient" in the Palliative-Rehabilitation combined Academics on 13.06.24.

**(13)** IAPC course in "Essentials in Palliative care" July 2024 batch started with 7 doctors( in-house) in online mode.Sessions will be held on 6<sup>th</sup>,7<sup>th</sup>,13<sup>th</sup>,14<sup>th</sup> 20<sup>th</sup> and 21<sup>st</sup> July 2024.This is the 19<sup>th</sup> batch from MCC.

**(14)** Dr. Divya , Fellow in H & N Oncology took a session on " Tracheostomy care" in the Palliative-Rehabilitation combined Academics on 11.07.24.

**(15)** Dr.Malavika Sachith posted for 7 days clinical posting as part of Foundation course in Palliative Medicine conducted by IPM on 05.08.24.

**(16)** Dr.Varsha posted for 10 days clinical posting as part of National Fellowship in Palliative Medicine on 08.08.24.

**(17)** Dr.Vaishali, Fellow in H & N Oncology took a session on "Basics of oral cancer surgeries" in the Palliative-Rehabilitation combined Academics on 10.08.24

**(18)** Dr.Malavika Sachith completed her 7 days clinical posting as part of Foundation course in Palliative medicine conducted by IPM on 12.08.24



**(19)** Dr.Akhil P posted for 10 days clinical posting as part of National Fellowship in Palliative Medicine on 19.08.24

**(20)** Dr.Varsha ,NFPM candidate completed her 10 days clinical posting as part of NFPM course on 20.08.24.

**(21)** Ms.Arya , Physiotherapy Fellow joined for 1 weeks clinical posting on 26.08.24.

**(22)** Dr.Nuslina posted for 10 days clinical posting as part of National Fellowship program in Palliative Medicine conducted by IPM on 29.08.24.

**(23)** Dr.Akhil P(Emergency Medicine Physician,MIMS,Kannur) took a session on “Approach to dysnea” in the Palliative-Rehabilitation combined Academics on 29.08.24.

**(24)** Dr.Akhil P NFPM candidate completed his 10 days clinical posting as part of NFPM course on 30.08.24.



**(25)** Dr.Shaara Rajeevan joined for the clinical posting of Foundation Course in Palliative care on 02.09.24 to 05.09.24.



**(26)** Dr.Nuslina completed 10 days clinical posting as part of National Fellowship program in Palliative Medicine conducted by IPM on 10.09.24



(27) The final examination for the IAPC course in "Essentials in Palliative care" July batch was held on 05.10.24 in online mode. 7 candidates appeared for the exam.



(28) Dr.Rahima M K posted for 10 days clinical posting as part of National Fellowship program in Palliative Medicine conducted by IPM on 14.10.24.

(29) Dr.Rahima M K completed 10 days clinical posting as part of National Fellowship program in Palliative Medicine conducted by IPM on 25.10.24.

(30) Dr.Biji was invited as one of the external examiner for the National Fellowship in Palliative Medicine/Nursing course final examination jointly conducted by IPM, Calicut and Christian medical Association, Delhi on 26<sup>th</sup> and 27<sup>th</sup> October 2024.

(31) Dr.Shivakumar, DNB Resident from SOG posted for one weeks clinical posting from 11.11.24 to 16.11.24.

(32) Dr.Sano, DNB Resident from SOG posted for one weeks clinical posting from 25.11.24 to 30.11.24.

(33) Dr.Rajina K R posted for 10 days clinical posting as part of National Fellowship program in Palliative Medicine conducted by IPM from 23.12.24 to 04.01.25.

(34) IAPC course in "Essentials in Palliative care" Jan 2025 batch started on 04.01.25 with 3 doctors (in-house) in online mode. Sessions will be held on 4<sup>th</sup>, 5<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Jan 2025. This is the 20<sup>th</sup> batch from MCC.

(35) Abina S S, Staff Nurse took a session on Introducing Palliative care as part of implementing palliative care policy at MCC on 18.01.25. Around 8 technicians from various dept attended the session.



**(36)** Sheeja Nellikka ,Staff Nurse took a session on “Introducing Palliative care”on 22.01.25 as part of implementing palliative care policy at MCC. Around **23** members including hospital Assistants, Front office Assistants, students of CAPR, Dosimetrist,ST promoter,telephone operator attended the session.

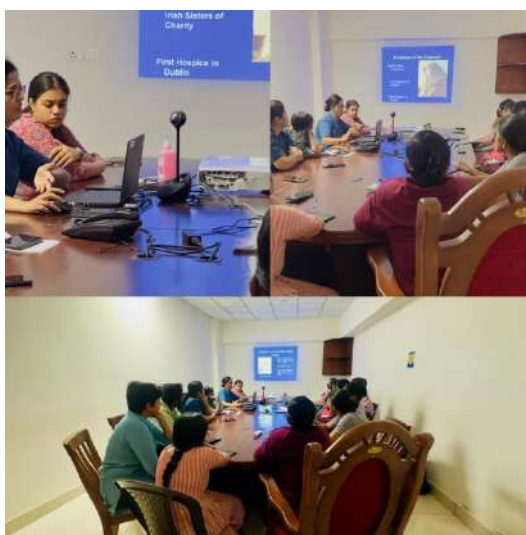


**(37)** Nimmy ,Staff Nurse took a session on “Introducing Palliative care) on 23.01.25 as part of implementing palliative care policy at MCC. Around **17** including hospital Assistants,Front office Assistants, students of CAPR, ,ST promoter, attended the session .



**(38)** Dr.Binu K joined for the Part B IAPC course which consists of 10 days of hands on training in palliative care from 03.02.25 to 14.02.25.

**(39)** Dr.Biji took a session on Introducing Palliative care on 28.02.25 as part of implementing palliative care policy at MCC. Around **15** including MSc Nursing students,Dietitics,psycho oncology,dental, speech therapist attended the session .



(40) Sheeja Nellikka ,Staff Nurse took a session on “Introducing Palliative care” on 01.03.25 as part of implementing palliative care policy at MCC. Around 30 members including cleaning and laundry staff attended the session.



(41) Dr.Sonali Opneja joined for the Part B IAPC course which consists of 10 days of hands on training in palliative care from 03.03.25 to 13.03.25.



(42) Dr.Sarath K E, took a session on “Introducing Palliative care” on 08.03.25 as part of implementing palliative care policy at MCC. Around 25 members from the Department of CLSTR attended the session.

(43) Mock exam for the IAPC course January 2025 was held on 31.03.25.All three candidates attended the exam.The final exam will be held on 06.04.25.

### **3.ROUTINE ACADEMIC SESSIONS**

The department collaborates with the Department of Dentistry and Rehabilitation & Division of Psycho-oncology to hold joint academic sessions. These educational meetings take place twice weekly, occurring on Thursdays and Saturdays.

### **C.RESEARCH ACTIVITIES:**

#### **ONGOING PROJECT DETAILS:**

1) **Assessment of spiritual wellbeing in advanced cancer patients receiving palliative care in a tertiary cancer center in Kerala-A mixed method study**(PI-Dr.M.S.Biji)

2) **Return to work after curative cancer therapy and the barriers associated with it.**(PI-Dr.M.S.Biji)

This study was done to estimate the proportion of individual who return to work after completion of their cancer treatment and to assess the various barriers to individuals in returning to work after cancer treatment. A sample of 200 patients was studied

3) **Quality of Life in Cancer Patients who have undergone intestinal stoma in the treatment of cancer.**(PI - Dr.M.S.Biji)

This study was done to study about quality of life using Malayalam version of 'City of Hope National medical center quality of life questionnaire(COHQOL-OQ)in cancer patients who have undergone intestinal stoma in treatment of their cancer and are following up with stoma clinic of Malabar Cancer center. A sample of 100 patients was studied.

#### **PROJECTS COMPLETED IN CURRENT YEAR**

- **Linguistic Validation of the Functional Assessment of Chronic Illness Therapy-Spiritual-Wellbeing-Expanded(FACIT-Sp-Ex) Version 4 Tool into Malayalam Language and its Feasibility in Advanced Cancer Patients Receiving Palliative Care.**

This study was a part of a larger on-going project. As there is no tool in Malayalam language to assess the spiritual well-being in cancer patients ,this study was done to validate the FACIT-Sp-Ex tool after obtaining permission from FACIT organization. The study was done on 10 patients as per the FACIT Methodology.

### **AWARDS, HONOURS AND RECOGNITIONS:**

1. **Dr.M.S.Biji, Convener** , Committee for Pain and Palliative care ,Indian Medical Association, Kerala State Branch(IMA KSB) 2024-25
2. **Dr.M.S.Biji** received IMA Kerala State Branch **President's Appreciation Award** at **IMACON 2024** held at Thrissur Lulu Convention Centre on 10.11.24



3. **Dr.M.S.Biji** , IAPC National faculty since 2014.
4. **Dr.M.S.Biji** ,Regional Co-ordinator for IAPC course ”Essentials of Palliative Care”.
5. **Dr.M.S.Biji** ,National faculty for the National Fellowship Program in Palliative Medicine and National Fellowship program in Palliative Nursing.

### **CONFERENCES AND WORKSHOPS ATTENDED:**

(1)Dr.M.S.Biji attended MVR CANCON 2024 on 1<sup>st</sup> September 2024 as a faculty with a talk on “**Incorporating technologies in Palliative care**”.



### **EVENTS:**

(1) World Hospice and Palliative care Day(12<sup>th</sup> October) was observed in MCC on 19.10.24.In connection with this,a get together for SPANDANAM (stoma patients support group) was held in the pediatric conference hall.The program was inaugurated

by Dr.Satheesan B, Director MCC. Around 50 members participated in the program. The program ended at 1.00 pm



(2) Kerala Palliative care Day(15<sup>th</sup> January) was observed in MCC on 11.01.25.In connection with this, an educational program for ostamates ( SPANDANAM -stoma patients support group) was held in the the Academic and Treatment block,Seminar hall.The program was inaugurated by Dr.Satheesan B, Director MCC.. The program ended at 1.00 pm.





**STAFF**

ACADEMIC		
SL NO	NAME OF STAFF	DESIGNATION
1.	Dr.M.S.Biji	Assistant Professor & in-Charge
NON-ACADEMIC		
SL NO	NAME OF STAFF	DESIGNATION
1.	Mrs.SheejaNellikka	Staff Nurse

## DEPARTMENT OF CANCER REGISTRY & EPIDEMIOLOGY

<b>HEAD IN CHARGE</b>	DR. SAINA SUNIL KUMAR MBBS, MHSC PUBLIC HEALTH LECTURER
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### INTRODUCTION

The Department of Cancer Registry & Epidemiology was set up to provide the cancer statistics reported at the institution and the information on patient care. The registry's responsibility is to ensure high-quality cancer data is available to inform and improve cancer care standards and clinical outcomes, while also facilitating the use of cancer information for audit and research programs.

In collaboration with National Cancer Registry Programme (NCRP) of ICMR-NCDIR, the Hospital Based Cancer Registry (HBCR) was launched in November 2010 and began operations in February 2011. The HBCR collects data from cancer patients registered. Over this period, the department has released 13 annual HBCR reports.

The Malabar Population Based Cancer registry (MPBCR) was launched in 2014 for three districts Kannur, Kasaragod and Mahe with technical support by NCRP, ICMR. Population-based cancer registries seek to collect data on all new cases of cancer/mortality occurring in a well-defined population. As a result, and in contrast to hospital based registries, the main objective of this type of cancer registry is to produce statistics on the occurrence of cancer in a defined population and to provide a framework for assessing and controlling the impact of cancer in the community. The department has published five Malabar Population Based Cancer Registry Reports for years 2014-2018. The department expanded MPBCR area to the 5 districts Kozhikode, Malappuram, Wayanad, Thrissur and Palakkad in 2018.

The patterns of care and survival studies (POCSS) for breast, cervix, and head and neck cancers began in 2014 with financial backing from ICMR-NCDIR. This surveillance program monitors the health status of patients with these cancers at regular intervals. Since March 2017, the POCSS project has been integrated with and financially supported by NCDIR, ICMR.

### DIVISION UNDER THE DEPARTMENT

#### **Medical Records Division**

#### AVAILABLE FACILITIES:

1. Hospital Based Cancer Registry(HBCR)
2. Population Based Cancer Registry (PBCR)

### 3. Patterns of Care and Survival Studies (POCSS)

### 4. Providing Statistical Consultancy

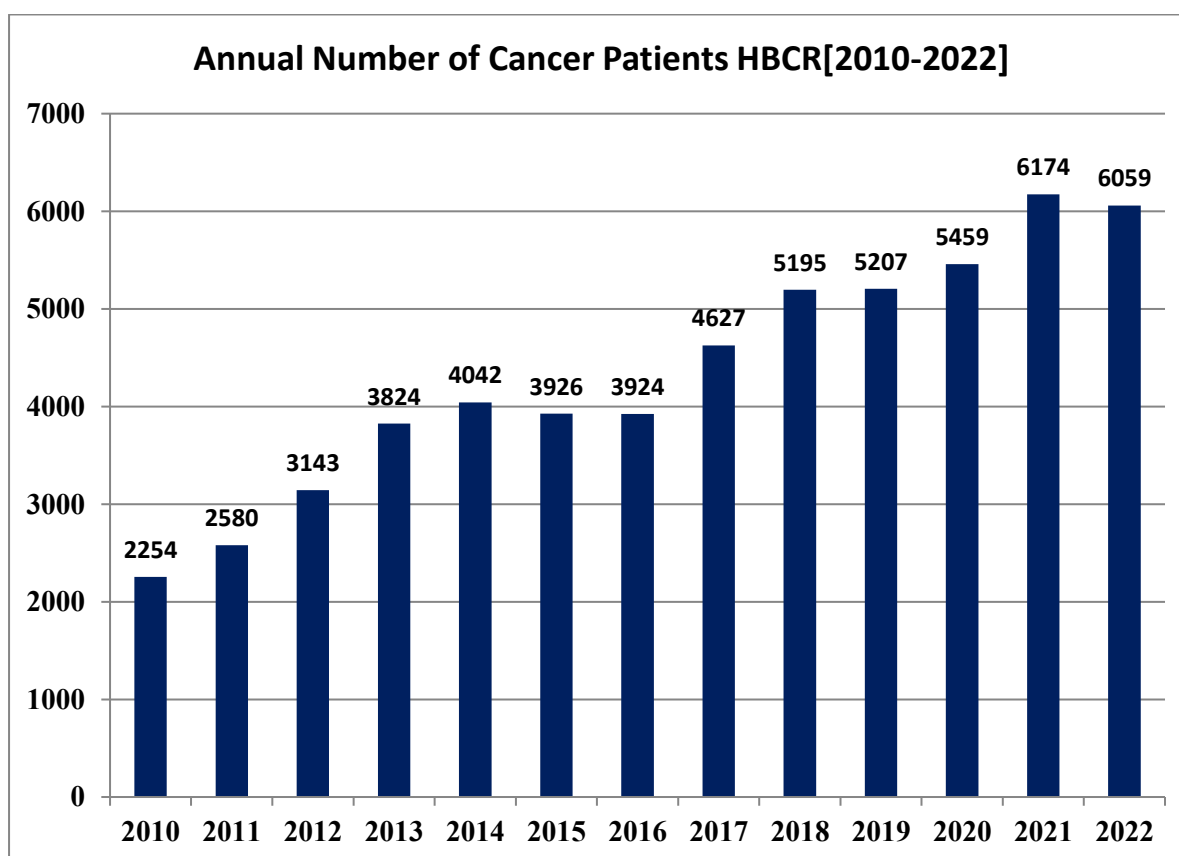
## PUBLICATIONS

- Sunilkumar S, Bindu T, Kumbakara R, Balasubramanian S. Patterns of cancer at a tertiary cancer center in Kerala, India, based on 10-years of hospital-based cancer registry data: A retrospective observational study. *Cancer Res Stat Treat* 2024;7:185-92.
- Bindu T, Balasubramanian S, Sunilkumar S. Author's reply to Jose and Tripathy. *Cancer Res Stat Treat* 2024;7:378-9.
- Hospital Based Cancer Registry Annual report for the year 2022
- Abhayam, Newsletter December 2023, March 2024, June 2024, and September 2024 edition.

## ACTIVITIES:

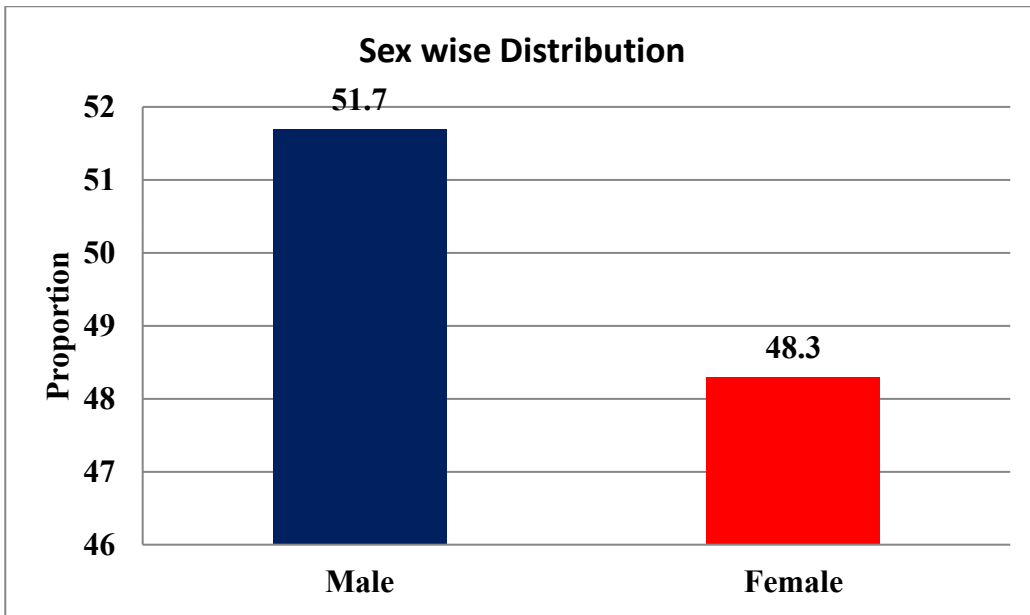
### A. REGISTRY ACTIVITIES:

#### 1. HOSPITAL BASED CANCER REGISTRY REPORT 2022



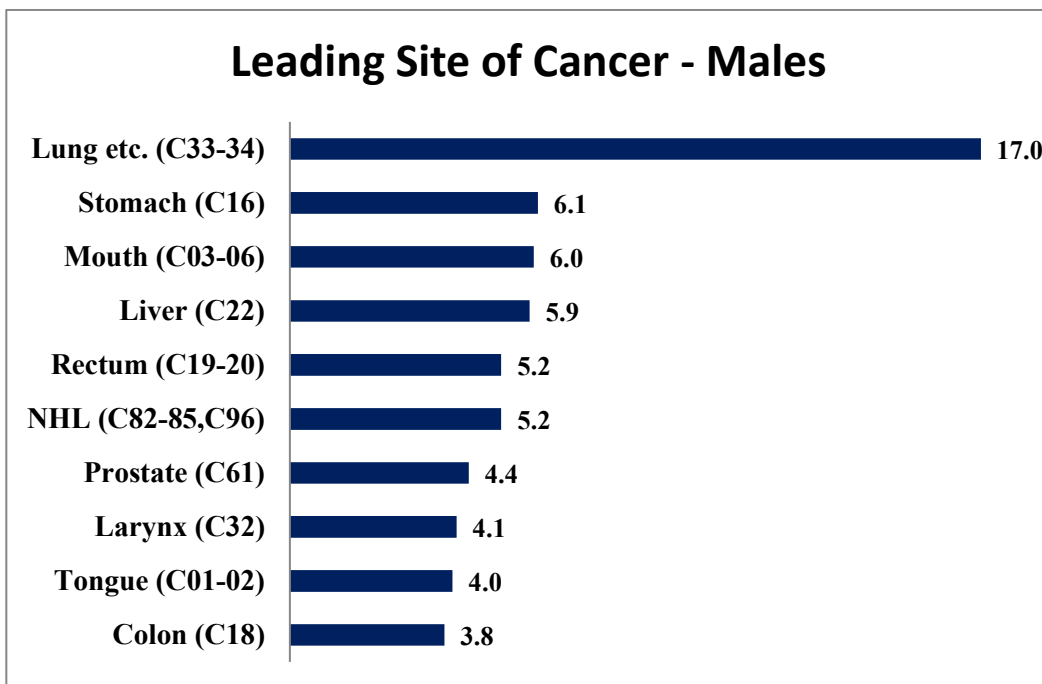
#### 2. MAGNITUDE OF CANCERS

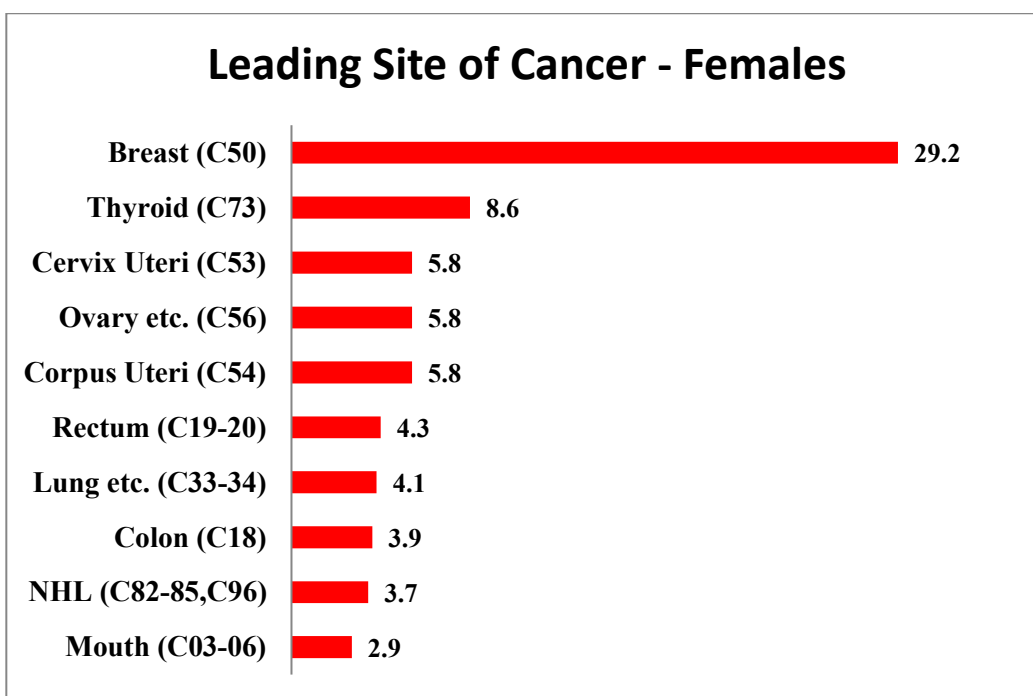
- During the year 2022, a total of 6059 cancer patients were registered at MCC and among them 3130 (51.7%) were males and 2929 (48.3%) were females.



#### LEADING SITE OF CANCERS

- Leading site of cancer among males was Lung cancer 533(17.0%) followed by Stomach 190 (6.1%)
- Leading site of cancer among females was Breast cancer 856(29.2%) followed by Thyroid 253(8.6%)





## **B. ACADEMIC ACTIVITIES**

### **1. SHORT TERM PROJECTS**

Sl.N o.	Name of the course	Duration	Institution	Number of candidates
1.	MSc Statistics	3mths.	School of Mathematics & Statistics, Mahathma Gandhi University, Kottayam	1
2.	MSc Statistics	3mths.	PG & Research Department of Statistics, Farook College, Kozhikode	2
3.	MSc Biostatistics	3mths.	St.Thomas College, Palai, Kottayam	1
4.	MSc Medical Statistics	3 mths	JSS Academy of Higher Education & Research, Mysuru	3
5.	MSc Statistics	3mths.	Department of Statistical Sciences, Kannur University	3
<b>Total Number Of Students: 10</b>				

### **2. STATISTICS INTERNSHIP**

Sl.N o.	Name of the course	Duration	Institution	Number of candidates
1.	MSc Biostatistics	1mths.	Department of Biostatistics, Kannur University	1
2.	MSc Statistics	1mths.	Department of Statistics, Central University, Tamilnadu	1
3.	Faculty	1mths.	SN College, Kannur	1
<b>Total Number Of Students: 3</b>				

### **3, ROUTINE ACADEMIC SESSIONS**

- Journal Club on Wednesday, Topics on Thursday

<b>1</b>	<b>Journal Club</b>	<b>13</b>
<b>2</b>	<b>Topic</b>	<b>13</b>

### **C. RESEARCH ACTIVITIES**

#### **ONGOING PROJECT DETAILS:**

1. **Hospital Based Cancer Registries in India” funded by NCDIR, ICMR [PI: Dr.Saina Sunil Kumar].**
2. **A study on patterns of care and survival of head and neck, breast and cervical cancers in India under the Hospital Based Cancer Registries of National Cancer Registry Programme funded by NCDIR, ICMR [PI: Dr.Saina Sunil Kumar].**
3. **Population Based Cancer Registry for three districts Kannur, Kasaragod and Mahe [PI: Dr. Satheesan B]**
4. **Population Based Cancer Registry for Five districts Kozhikode, Malappuram, Thrissur, Palakkad and Wayanad [PI: Dr. Satheesan B]**
5. **Application of Artificial Neural network in predicting the prognosis of early oral cancer patients [PI: Dr. Ratheesan K]**
6. **Predicting the prognosis of early oral cancer patients using Random forest algorithm [PI: Dr. Ratheesan K]**
7. **Construction and validation of nomogram for predicting the survival probability of breast cancer patients [ PI: Dr. Bindu T]**
8. **Comparison between Cox Proportional Hazard Model and Parametric Models in analyzing the survival of breast cancer patients [ PI: Dr. Bindu T]**
9. **Comparison between Cox Proportional Hazard Model and Accelerated Failure time models in analyzing the survival of head and neck cancer patients [ PI: Dr. Bindu T]**
10. **Investigating the survival impact of total and involved field peritonectomy during cytoreductive surgery with or without HIPEC in advanced ovarian cancer patients: A systematic review and meta-analysis [Research Team: Dr.Satheesan B, Dr. Praveen Shenoy, Dr. Bindu T, Dr.Adarsh Dharmarajan, Dr.Bony Aloysius, Shahana PKP]**

#### **PROJECTS COMPLETED IN CURRENT YEAR**

1. **Estimation of the mean duration between diagnosis and treatment initiated using gamma distribution [PI:Dr.Ratheesan K]**

The main intention of this study was to estimate the average time between the date of diagnosis and the date of treatment started. These time lag may vary from patients to patients based on their clinical and demographic characteristics. We can use different statistical distributions to estimate the average duration between the date of diagnosis and date of treatment started. Here we have used Gamma distribution to estimate this mean duration.

2. **Local recurrence in total Mastectomy versus Breast Conserving Surgery in early stage breast cancer patients- A Systematic review and Meta analysis [PI:Dr.Ratheesan K]**

The main objective of this study is to assess and compare the rate of local recurrence in total mastectomy versus breast conserving surgery in early stage breast cancer patients. Studies are searched on databases like PubMed, Cochrane library, etc. Studies from the year 2000 are considered for this meta analysis. Heterogeneity between studies is calculated using  $I^2$  test and Cochran Q statistic. Statistical analysis is carried out using softwares like spss, python and R-studio.

### **3. Identifying the predictors for breast cancer mortality using logistic regression and comparison with Random forest algorithm [PI: Dr.Bindu T]**

The main objective of this project is to use logistic regression, decision tree and random forest algorithms to find important factors related to breast cancer mortality. By combining machine learning methods with logistic regression, improve the accuracy of breast cancer prediction. Additionally, we compared these algorithms to see which one gives the best results. In this study, analysis was performed on data of 1025 patients with breast cancer to identify significant predictors. The machine learning algorithm was compared with the logistic regression model and found that machine learning algorithm had the best predictive performance with having an accuracy of 84.5% and AUC 0.846. The decision tree model has a low accuracy of 78.5% and an AUC of 0.76, is not that effective in classifying observations correctly compared to random forest model.

### **4. Prediction of prognostic factors for Breast cancer survival using Cox PH model and comparison with Machine learning technique [PI: Dr.Bindu T]**

This study aimed to predict the prognostic factors for breast cancer survival data and to identify **the best prediction model for estimating the prognostic factors for the breast cancer survival data using Machine learning techniques.** This retrospective cohort study was conducted using data from 1025 breast cancer patients treated at Malabar Cancer Centre between January 1, 2017, and December 31, 2018 and followed up till April 2024. Clinical, demographic, pathological, and treatment details were collected. Kaplan-Meier survival analysis was performed, and prognostic factors were identified using Cox proportional hazard model and compared with the machine learning techniques. Model performance was assessed using the concordance index (C-index) and time-dependent area under the curve (AUC). A total of 1025 female breast cancer patients were included in this study. The median follow-up time was 73.6 months, with a 5-year survival probability of 71.70%. Key prognostic factors included tumor grade, composite stage, treatment intention, and classification subtype. Composite stage was identified as the most important variable, followed by intention to treat. In the Random Survival Forest model, the C-index was 0.7792, slightly outperforming the Cox elastic net and the Cox Lasso models.

### **5. Prediction of prognostic factors for Head and Neck cancer survival using the Cox PH model and Comparison with the Lasso-based survival prediction model [PI: Dr.Bindu T]**

The main objective of this study identify significant prognostic factors influencing survival in head and neck cancer patients using Cox proportional hazards regression model and Lasso-based Cox model. Also to assess the improvements in survival prediction using Lasso-based Cox regression over traditional Cox regression for head and neck cancer. The study aims to identify the prognostic factors influencing the survival of head and neck cancer patients treated at Malabar Cancer Centre from 2017 to 2019 using the Cox PH model and the Lasso-based Cox model along with the comparison of these two models. The median follow-up obtained is 72 months with a survival probability of 54.3% using the Kaplan-Meier method of survival analysis. Using the Cox PH

model the factors influencing survival are primary site, tumour grade, tumour size, nodal status, type of treatment given, and smoking habit while the Lasso-based Cox model included age category, metastasis status, composite stage, tobacco chewing, and alcohol consumption. Each model showcases higher accuracy in prediction with a higher C-index and AUC. When comparing these two models, the Cox PH and the lasso-based Cox model, we found that both the C-index and AUC values are similar for each model. Cox has a C-index of 0.676 whereas the lasso model has 0.673. When comparing AUC, Cox has an AUC of 0.72 whereas the Lasso Cox model has 0.717 which also indicates both models have better predictive accuracy.

## **RECOGNITIONS:**

1. Risana Parvin Department of Statistics from Farook college got second prize in RN Pilla Memorial national level project competition for the study entitled “Prediction of Prognostic Factors for Ovarian Cancer Survival Using Parametric Regression Models and Comparison with Parametric Bootstrap Analysis” under the guidance of Dr. Bindu T

## **WORKSHOPS ATTENDED:**

1. Dr. Saina Sunilkumar, Dr. Bindu T and Dr. Ratheesan K are attended online training for POCSS (Breast, Cervix & Head & Neck cancers) project on 19/08/2024
2. Dr. Saina Sunilkumar attended Training program for starting daycare chemo unit in WCH Mangattuparamba Kannur as a faculty and presented the topic on Cancer Burden for doctors and nurses on 03-10-2024.
3. Dr. Bindu T attended five days National Workshop on Python programming with Machine Learning & Artificial Intelligence (WPMLAI-2024) on 18-22 November 2024.
4. Dr. Bindu T attended 7 day online workshop on Advanced Statistical Techniques for Academic Excellence in Data Analytics (FDP-ASTAEDA-2024) on oct 22-28, 2024.
5. Shibin Mathew & Athira.M (HBCR-POCSS) Aiswarya N.V & Shana Shahabana (PBCR). ICMR-NCDIR organized a 6 day residential training programme from 6- 11 Jan 2025 for cancer registry staff at Bengaluru.
6. Dr. Ratheesan K attended online Data Science workshop series from 27/1/2025 to 8/2/2025 organised by Digital University of Kerala
  1. Data Analytics & Computational Science: Tools and Techniques
  2. Machine Learning: Redefining Boundaries in Healthcare and Drug Discovery
  3. Exploring Geoinformatics through Data Science
  4. Data Science: Automating knowledge discovery, Driving Innovation, and Shaping the Future
7. Dr. Saina Sunil Kumar, attended the ICMR-NCDIR organized data review meeting on the 21<sup>st</sup> February 2025 at RCC, Thiruvananthapuram

## **EVENTS:**

1. Workshop on ‘Qualitative Research’ for in-house faculties - 23<sup>rd</sup> November 2024  
Organising Secretary: Dr. Saina Sunil Kumar



2. Two days workshop on “Advanced methodology in systematic review & meta analysis” (AMSAW) to be held on 15<sup>th</sup>& 16<sup>th</sup> February 2025.

Organising Chairman: Dr. Saina Sunil Kumar

Organising Secretary: Dr. Bindu .T

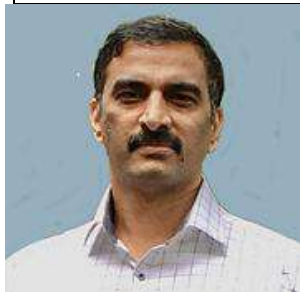


## STAFF

ACADEMIC STAFF		
SL. NO	NAME OF STAFF	DESIGNATION
1	Dr. Saina Sunil Kumar	Lecturer,H.O.D(I/C)
2	Dr. Bindu.T	Lecturer(Biostatistics)
3	Dr. Ratheesan.K	Lecturer(Biostatistics)
NON ACADEMIC STAFF		
SL. NO	NAME OF STAFF	DESIGNATION
1	Prachith.K	Coding clerk

## DEPARTMENT OF CLINICAL HEMATOLOGY & MEDICAL ONCOLOGY

<b>HEAD OF THE DEPARTMENT</b>	DR CHANDRAN K NAIR, MD DNB (GENERAL MEDICINE) DM (CLINICAL HEMATOLOGY) PROFESSOR
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### INTRODUCTION

The department commenced operations in January 2011, subsequently establishing three divisions: Clinical Hematology, Medical Oncology, and Pediatric Oncology. Clinical Hematology addresses benign and malignant blood disorders, Medical Oncology manages chemotherapy for solid tumors, and Pediatric Oncology treats childhood cancers. A blood/marrow transplant program was initiated in 2013, followed by a Fellowship program in Hemato-oncology & BMT in 2016. DrNB Clinical Hematology and DrNB Medical Oncology programs were launched in 2023 and 2024, respectively.

### DIVISIONS UNDER THE DEPARTMENT

- 1) **Clinical Hematology**
- 2) **Medical Oncology**
- 3) **Pediatric Oncology**

## DIVISION OF CLINICAL HEMATOLOGY

**Division in charge:** Dr Chandran K Nair , MD DNB (General Medicine) DM (Clinical Hematology), Fellowship in Leukemia and Bone Marrow Transplantation(BC Cancer Agency, University of British Columbia, Canada)

### INTRODUCTION:

This division specializes in diagnosing and treating benign blood disorders across all age groups and malignant blood disorders in patients 15 years and older. Intensive chemotherapy treatments, such as acute leukemia induction and consolidation, are administered in single-occupancy, air-conditioned rooms within the Intensive Chemotherapy unit. The outpatient department serves approximately 10000 patients annually, with around 2500 new case registrations. Day care chemotherapy is provided in a dedicated ward equipped with biosafety cabinets.

Additionally, this division offers Hematopoietic stem cell transplantation for both benign and malignant disorders in adults and children. The Bone marrow transplantation unit at MCC was established in 2013. As of April 2024, MCC has conducted 232 stem cell transplants, including matched sibling, matched unrelated donor, haploidentical, and autologous transplants.

### AVAILABLE FACILITIES:

1. Evaluation and treatment of benign and malignant hematological disorders.
2. Inpatient care is given in a dedicated intensive chemotherapy unit and general wards.
3. High intensity chemotherapies like acute leukemia induction, consolidation etc are administered in Intensive Chemotherapy unit, which are single occupancy air-conditioned rooms .
4. Outpatient department caters to around 10000 patients in a year with around 2500 new case registrations.
5. Day care chemotherapy is administered in a day chemo ward equipped with biosafety cabinets.
6. Blood/marrow stem cell transplantation for benign and malignant disorders in both adults and children, including all types of allogeneic transplants: matched related donor, matched unrelated donor, and haplo-identical transplantation.
7. CAR T cell therapy for B cell hematologic malignancies.

### ACTIVITIES:

#### A. CLINICAL ACTIVITIES:

OPD ATTENDANCE CLINICAL HEMATOLOGY	NEW CASES CLINICAL HEMATOLOGY	BONE MARROW STUDY HEMAT	LUMBAR PUNCTURE WITH I.T MTXHEMT
18707	1333	895	452

BONE MARROW TRANSPLANT APRIL 2024 TO MARCH 2025										
	ADULT				PEDIATRIC					
	Matched Related Donor	Matched Unrelated Donor	Haplo-identical	TOTAL	Matched Related Donor	Matched Unrelated Donor	Haplo-identical	TOTAL	Grand Total	
Allo-transplantation	8	3	5	16	5	2	6	13	29	
Autologous Transplantation	11				-					11
Total Bone Marrow Transplantation	27				13					40
CART - cell	4				-					4

## **B. ACADEMIC ACTIVITIES:**

### **1. COURSES AND TRAINING PROGRAMS:**

SL NO	NAME OF THE COURSE	DURATION	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1	DrNB Clinical Hematology	3 yrs	2	2	3
2	Fellowship in Hemato-oncology & BMT	1 yr	2	1	1
<b>Total Number of Students</b>					<b>4</b>

### **2. ROUTINE ACADEMIC SESSIONS**

1. Weekly academic sessions on Wednesdays and Thursdays for Review topics and journal clubs.
2. Clinico-pathological correlation meetings on the 1st and 3rd Thursday afternoons.
3. Mortality and morbidity meetings.
4. Monthly transplant board meetings, with increased frequency as needed. These meetings involve discussions on planned transplant cases, decision-making, risk assessment, conditioning regimens, and transplant types.

## **C. RESEARCH ACTIVITIES:**

### **ONGOING PROJECT DETAILS:**

1. A Randomised, Open- Label Study of the Efficacy and Safety of Galinpepimut – S (GPS) Maintenance Monotherapy Compared to Investigator’s Choice of Best Available Therapy in Subjects with Acute Myeloid Leukaemia Who Have Achieved Complete Remission After Second- Line Salvage Therapy. (1617/IRB-IEC/13/MCC/22-08-2023)
2. **Project registration number:** No:1617/IRB-IEC/13/MCC/01-11-2023/3  
**Protocol Title:** A Randomized, Open-Label, C5 Inhibitor-Controlled Study to Evaluate the

Efficacy and Safety of Pozelimab and Cemdisiran Combination Therapy In Patients with Paroxysmal Nocturnal Hemoglobinuria who are Complement Inhibitor Treatment-Naive or Have Not Recently Received Complement Inhibitor Therapy.

3. **Project registration number:**No: 1617/IRB-IEC/13/MCC/25-01-2024/2      **Protocol Title:** A Phase 2a study of HT-6184 in subjects with IPSS-R Very Low, Low or Intermediate Risk Myelodysplastic Syndrome (MDS) and Symptomatic Anemia.
4. **Project registration number:**No: 1617/IRB-IEC/13/MCC/01-11-2023/4      **Protocol Title:** Title:Phase III open labelled randomized controlled study to evaluate the optimal dose of all-trans retinoic acid in the treatment of acute promyelocytic leukemia' (APL DOSA)
5. **Project registration number:**No: 1617/IRB-IEC/13/MCC/25-01-2024/1 **Protocol Title:** A multicenter, randomized, open label, two treatment, two period, single-dose, crossover, bioequivalence study of Azacitidine Tablets 300 mg manufactured by Teva, Czech Industries s.r.o. with ONUREG (Azacitidine) Tablets 300 mg manufactured by Celgene Distribution B.V., Netherlands under fasting condition in patients with a confirmed diagnosis of Acute Myeloid Leukemia in remission phase.**No of participants recruited: 0,SAE at the site: 0**
6. **Project registration number:**No:1616/IRB-SRC/13/MCC/02-08-2024/4 **Protocol Title:**Impact of Consolidation Radiotherapy In Bulky Diffuse Large B Cell Lymphoma by PET based response assessment has been reviewed by the scientific review committee (SRC) of institutional review board (IRB) of Malabar Cancer Centre (MCC) in which the meeting held on 02-08-2024 at MCC thalassery
7. **Project registration number:**No:1616/IRB-SRC/13/MCC/01-03-2025/8 **Protocol Title:** Cytomegalovirus Reactivation post allogeneic stem cell transplantation; A-world experience from a tertiary cancer centre rural India .has been reviewed by the scientific review committee (SRC) of institutional review board (IRB) of malabar cancer centre (MCC) in which the meeting held on 01-03-2025 at MCC
8. **Project registration number:**No1616/IRB-SRC/13/MCC/01-03-2025/7 **Protocol Title:** Incidence and risk factor of CLABSI and CRBSI in a Bone Marrow Transplant unit; a real -world experience from a tertiary cancer centre in rural India has been reviewed by the scientific review committee (SRC) of institutional board (IRB) of Malabar Cancer Centre (MCC) in which the meeting held on 01-03-2025 at MCC thalassery

#### **PROJECTS COMPLETED IN CURRENT YEAR**

1. **Project registration number: No.**1617/IRB-IEC/13/MCC/12-01-2022/1 **Protocol Title:** A Prospective Double-Blind Randomised Phase III Clinical Study To Evaluate The Immunogenicity And Safety Of Single Booster Dose Of Biological E's Corbevax Vaccine When Administered Adult Volunteers Previously Vaccinated With 2- Doses Of Either Covishield Or CovaxinTo Covid-19-Negative Study Status: Closeout No of participants recruited: 41,SAE at the site: 1

#### **PUBLICATIONS:**

1. Bain GG, Nair CK, Shenoy PK, Raghavan V, Menon A, Devi N. Intensive care unit admission rates and factors associated following Autologous stem cell transplantation - real-world experience from a tertiary center in rural India Support Care Cancer [Internet]2024 Nov 8[cited 2024 oct 13];32(11):711.Available from <https://pubmed.ncbi.nlm.nih.gov/39377847/>
2. Nair C. Impact of Consolidation Radiotherapy in Bulky Diffuse Large B Cell Lymphoma By PET Based Response Assessment.ASH;2024 <https://ash.confex.com/ash/2024/webprogram/Paper203645.html>

3. Rajendra A, Shetty A, Korula A, Jain H, Paul M, Ganesan P, Kalaiyarasi JP, Devadas SK, Selvarajan S, Menon A, Karunakaran P. Outcomes and Prognostic Factors in Patients with Primary Mediastinal B Cell Lymphoma: An Experience from Hematology Cancer Consortium. Blood. 2023 Nov 2;142:3141.
4. Rajendra A, Sengar M, Korula A, Ganesan P, Jain H, K D, et al. Outcomes and prognostic factors in patients with Burkitt lymphoma/leukemia in adolescents and adults: an experience from hematology cancer consortium. 2025 Mar 15 [cited 2025 Mar 15];15(1). Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC11909211/>

### **AWARDS, HONOURS AND RECOGNITIONS:**

1. Dr.Chandran K Nair was appointed by National Cancer Grid as the chair for the committee for preparing a complete Medical oncology module in future EMR to be implemented across NCG centers in India.

### **STAFF**

<b>ACADEMIC STAFF</b>		
<b>SI No</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Dr Chandran K Nair	Professor
2	Dr Abhilash Menon	Assistant Professor
3	Dr Shoaib Nawas	Assistant Professor

## **DIVISION OF MEDICAL ONCOLOGY**

**Division in charge:** Dr Praveen Kumar Shenoy V P, MD (General Medicine) DM (Medical Oncology)

### **INTRODUCTION:**

Medical oncology division deals with comprehensive evaluation and medical treatment of various types of solid in adults with chemotherapy, immunotherapy and targeted agents. Spectrum of cases seen in Medical Oncology division include Breast cancer, Gastrointestinal cancers, Lung cancer, Head and Neck cancers, Gynaecological cancers, Endocrine cancers, Thoracic cancers, Genitourinary cancers, Brain cancers and cancers of bone and soft tissues. The division is well versed in administration of intraperitoneal and intravesical chemotherapy.

Medical oncology functions from Monday to Friday from 9 am to 5 pm and on Saturday from 9 am to 1 pm. The OPD census of the division in a year is around 20000. The division is involved in interdepartmental academics for training surgical, radiation and pathology residents in medical oncology.

The division has experience with running early phase clinical trials, Phase 3 randomised control trials, both industry sponsored and investigator initiated multicenter clinical trials. The division has collaborated with numerous prestigious institutions across India for various clinical trials and collaborative studies.

### **AVAILABLE FACILITIES:**

1. Evaluation and treatment of malignant solid tumors.
2. Inpatient care is given in general wards and private wards.
3. Outpatient department caters to around 20000 patients in a year
4. Day care chemotherapy is administered in a day chemo ward equipped with biosafety cabinets and state of the art facilities.
5. The division associates with the surgical oncology department in planning hyperthermic intraperitoneal chemotherapies.
6. The division has expertise in administration of a wide range of therapeutics including immunotherapies.
7. The division has a great deal of expertise in handling clinical trials from Phase 1 to Phase 4 and industry sponsored as well as investigator -initiated collaborative trials.

### **ACTIVITIES:**

#### **A. CLINICAL ACTIVITIES:**

MONTH	OPD ATTENDANCE Medical Oncology	Day Chemo administered
April 2024 to March 2025	<b>31507</b>	<b>25145</b>

#### **B. ACADEMIC ACTIVITIES:**

##### **1. COURSES AND TRAINING PROGRAMS:**

SL NO	NAME OF THE COURSE	DURATI ON	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1	DrNB Medical Oncology	3 yrs	2	2	2

## **2. ROUTINE ACADEMIC SESSIONS**

1. Weekly academic sessions on Monday to Thursday for Review topics, case presentations and journal clubs.
2. Molecular Tumor Board - Twice a month - 1st and 3rd Monday
3. Mortality and morbidity meetings - Monthly
4. Monthly transplant board meetings, with increased frequency as needed. These meetings involve discussions on planned transplant cases, decision-making, risk assessment, conditioning regimens, and transplant types.

## **C.RESEARCH ACTIVITIES:**

### **ONGOING PROJECT DETAILS:**

1. Outcomes Of Patients With Early Breast Cancer Receiving An Anthracycline Free Regimen As Adjuvant Chemotherapy.
2. A Multicenter, Double-blind, Randomized, Parallel-group, Phase 3 Study to Compare the Efficacy and Safety of the Proposed Biosimilar PERT-IJS and EU-Perjeta® along with Trastuzumab and Chemotherapy (Carboplatin and Docetaxel) as Neoadjuvant Treatment in Patients with Hormone Receptor Negative (HR-ve) Human Epidermal Growth Factor Receptor 2 (HER2)-positive Early Stage or Locally Advanced Breast Cancer
3. Assess Treatment Pattern and Outcome Among Elderly Breast Cancer Patients
4. NEAR AI, a model to predict response to immune checkpoint inhibitor therapy in Non Small Cell Lung carcinoma (NSCLC)
5. Post-operative intraperitoneal chemotherapy after interval cytoreduction in epithelial ovarian cancer (POLICE 2024): multicenter, randomized, phase III trial
6. To assess the adjuvant treatment pattern, clinical outcomes and textbook outcome rates in stage II and low risk stage III colon cancer
7. Scaling of Genetic services at a Tertiary Cancer Center from Southern India - An experience over a half a decade
8. Multicentric Evaluation of Comparative Assessment of Staging in Endometrial Cancer: FIGO 2009 vs. FIGO 2023 and the Role of Molecular Insights in Stratification, Acronym (MECASIS)
9. Attrition Rate And Its Causative Factors Among Patients With Metastatic Triple Negative Breast Cancer-Experience From A Tertiary Cancer Centre In South India
10. Clinicopathological Profile And Outcomes Of Oral Cavity Cancers In The Young

### **PROJECTS COMPLETED IN CURRENT YEAR**

1. Scaling of Genetic services at a Tertiary Cancer Center from Southern India - An experience over a half a decade - The utilization of genetic services among cancer patients has been low, with a particularly small number opting for germline testing. 8 had pathogenic mutations in BRCA –1, 3 in BRCA – 2, 2 in MLH1, 1 in RET, 1 in EHP1, 2 in MSH2, 7 had VUS

## **PUBLICATIONS:**

1. Rajan ND, Menon A, Shenoy PK, Avaronnan M, Shahana S, Therayangalath B. Efficacy and Safety Profile of Different Schedules of Adjuvant Trastuzumab Therapy among Patients with HER2-Positive Breast Cancer: Real-World Experience from a Tertiary Cancer Center in South India. South Asian J Cancer. 2024 Nov 6;14(1):62-66

2. Menon A, Devi R N, Shenoy PK, Avaronnan MA, George A. Effectiveness and Toxicity Profile of Reduced Dose Sorafenib for the Treatment of Hepatocellular Carcinoma: A Retrospective, Single Institutional Experience. *Cureus*. 2024 Nov 15;16(11):e73729.
3. Kothari R, Patil V, Madala RK, Singh R, Talreja VT, Pathak A, Shrirangwar S, Mandal TK, Das S, Turkar S, Pande N, Chandrasekharan A, Singh G, Gupta TC, Poladia B, Avaronnan M, Wilson L, Raut N, Jadhav M, Alone M, Kolkur M, Bhagyavant P, Pathak S, Peelay Z, Modi G, Khatwani I, Bhatt P, Kumar G, Jha B, Singh U, Madankar K, Sen N, Sonwani V, Muley S, Thavarool SB, Bhosale B, Katna R, Rajamanickam D, Rajamanickam S, Shenoy Vp PK, Karpe A, Banavali SD, Noronha V, Prabhash K. Phase 3 randomized study of physician choice vs metronomic chemotherapy in platinum refractory/ineligible head and neck cancer in palliative setting with survival outcomes. *Cancer Lett*. 2025 Apr 8:217702.

## STAFF

ACADEMIC STAFF		
SI No	NAME OF STAFF	DESIGNATION
1	Dr Praveen Kumar Shenoy V P	Associate Professor
2	Dr Nandini Devi	Assistant Professor
3	Dr Arun Krishnan	Assistant Professor

## **DIVISION OF PEDIATRIC ONCOLOGY**

**Division in charge:** Dr Jithin T K MD (PEDIATRICS), DM (PEDIATRIC ONCOLOGY)

### **INTRODUCTION:**

Pediatric oncology division at MCC caters to management of childhood cancer in children below 15 years of age. The division is equipped with two pediatric oncologists, ten staff nurses, a ward assistant, a dietician, a social worker and a clinical psychologist, along with other state-of-the-art facilities for administering chemotherapy, including a bio-safety cabinet and 16-bed ward with temperature regulation facility. Chemotherapy is administered via a central line (PICC line, Broviac line or chemo-port) which is inserted at the CVAD clinic or in the OT by the surgeon. Having a bed occupancy rate of nearly 70-80%, children are admitted on a regular basis for evaluation, providing intensive chemotherapy as well as for managing complications like febrile neutropenia.

Various Government Schemes (Arogyakiranam, Karunya Arogya Suraksha Padhathi, Thalolam, Karunya Benevolent Fund etc.) are utilized for providing financial support for children who are residents of the State. The Social worker helps families in finding NGO support to provide financial assistance to those children who are residents of nearby states and hence not eligible for the various Kerala Govt. Schemes.

Parent support programmes and survivor meetings are conducted on a regular basis where children (and parents) undergoing active treatment interact with medical professionals and survivors. MCC has MoU with NGOs like Cuddles Foundation, HOPE child cancer care foundation and Aroh foundation who provide manpower support (including dietician, clinical psychologists and social workers), other facilities like residential facilities (home away from home), Nutritional support, transport facilities and financial assistance.

### **AVAILABLE FACILITIES:**

1. Sixteen-bed pediatric oncology ward with play area
2. Chemotherapy preparation area with Bio safety cabinet
3. Separate play area with park, home theatre and a conference hall
4. Dedicated Procedure room

### **ACTIVITIES:**

#### **A. CLINICAL ACTIVITIES:**

<b>OPD ATTENDANCE CLINICAL HEMATOLOGY</b>	<b>NEW CASES CLINICAL HEMATOLOGY</b>	<b>BONE MARROW STUDY HEMAT</b>	<b>LUMBAR PUNCTURE WITH I.T MTXHEMT</b>
<b>13524</b>	<b>902</b>	<b>537</b>	<b>228</b>

## **B. ACADEMIC ACTIVITIES:**

### **1. COURSES AND TRAINING PROGRAMS:**

SL NO	NAME OF THE COURSE	DURATION	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1	Fellowship in Pediatric hematology and oncology (NBEMS)	2 yrs	0	0	0

### **2. ROUTINE ACADEMIC SESSIONS**

1. Routine academic activities are conducted in the department 3-4 days a week where pediatric oncology topics are presented and discussed by faculty and residents.

## **C. RESEARCH ACTIVITIES:**

### **ONGOING PROJECT DETAILS:**

1. **MCC - Quality Improvement Project – Improving hand hygiene compliance among doctors** (Dr Jithin T K)
2. **Introduction of Nudges in improving hand hygiene compliance among doctors** (Dr Jithin T K)

### **PROJECTS COMPLETED IN CURRENT YEAR**

1. **Effectiveness of structured video-assisted teaching module in improving knowledge and practice of hand hygiene among primary caregivers of children with cancer** (Dr Jithin T K)
2. **A structured nursing handover technique using ANTICIPATE format in a paediatric oncology unit** (Dr Jithin T K)

## **AWARDS, HONOURS AND RECOGNITIONS:**

1. Dr Jithin T K was elected as the chairperson of Pediatric Hematology Oncology subchapter of Indian Academy of Pediatrics, Kerala.

## **STAFF**

<b>ACADEMIC STAFF</b>		
SI No	NAME OF STAFF	DESIGNATION
1	Dr jithin T K	Assistant Professor
2	Dr. K G Gopakumar	Assistant Professor

## DEPARTMENT OF LABORATORY SERVICES AND TRANSLATIONAL RESEARCH

**HEAD OF THE  
DEPARTMENT**

DR. SANGEETHA K NAYANAR, MD PATHOLOGY,  
DNB PATHOLOGY  
PROFESSOR



### INTRODUCTION:

Diagnostic services in the Clinical laboratory services and Translational Research Malabar Cancer Centre grew several folds from its inception in 2001. There are five divisions in the Department of CLSTR namely, Biochemistry, Microbiology, Transfusion medicine, Molecular Oncology & Cancer genetics and oncopathology.

### DIVISIONS UNDER THE DEPARTMENT

1. **BIOCHEMISTRY DIVISION**
2. **CANCER GENETICS DIVISION**
3. **MICROBIOLOGY DIVISION**
4. **MOLECULAR ONCOLOGY DIVISION**
5. **ONCO-PATHOLOGY DIVISION**
6. **TRANSFUSION MEDICINE DIVISION**

## BIOCHEMISTRY DIVISION

**DIVISION IN CHARGE: DR. SINDHU E.R., M.Sc., PhD, ASSISTANT PROFESSOR**

### INTRODUCTION:

The division of Biochemistry at Malabar cancer Centre is committed to providing accurate and reproducible results on clinical material within the shortest possible time. It is a well-equipped, computerized, fully air-conditioned laboratory providing round the clock services. The clinical lab has the facility to do all the biochemical as well as hematological assays required in the hospital. It is connected to the Hospital Information System for electronic reporting of results within the turnaround time. The quality systems are compliant with the ISO 15189 standard guidelines.

SL. NO	NAME OF THE EQUIPMENT
1	Blood Gas Analyzer (ABG Machine)
2	Coagulometer (STAGO fully automated system)
3	CardiomarkeranalyserMini Vidas
4	Vitros 250 Biochemistry Analyser
5	Vitros 5600 Fully Automated Integrated Biochemistry Analyser
6	Access 2 tumor marker analyser (Beckman Coulter)
7	Blood cell counter Mindray BC-6200-2no
8	Vein Viewer
9	Electrophoresis apparatus with immunofixation
10	Osmometer

The technologists and staff in the division are trained to work independently, to ensure smooth functioning and compliance with the quality systems.

### NEW EQUIPMENT AND FACILITIES

**New tests started-**

SL NO.	NAME OF EQUIPMENTS	PURPOSE
1	Blood Gas Analyzer (ABG Machine)	Blood gas analysis
2	Coagulometer (STAGO fully automated system)	Coagulation studies
3	CardiomarkeranalyserMini Vidas	Chemi luminous immuno assays
4	Vitros 250 Biochemistry Analyser	Biochemistry assays
5	Vitros 5600 Biochemistry Analyser	Biochemistry and immuno assays
6	Access 2 tumor marker analyser(Beckman Coulter)	Chemi luminous immuno assays
7	Blood cell counter Mindray BC-6200-2no	Complete Blood Cell count

8	Vein Viewer	To view vein for blood collection
9	Electrophoresis apparatus with immunofixation	Electrophoresis with immunofixation of serum protein

## ACTIVITIES:

- One Month training/observer Program conducted for undergraduate and post graduate students of various colleges. M. Sc. Student's projects are carried out in our division under the supervision of Dr. Sindhu E. R.
- Various clinical samples from outside hospitals are also being tested and reported.

## A.CLINICAL ACTIVITIES:

STATISTICS		
SL NO	NAME OF SAMPLES	NUMBER
1	CBC	47693
2	Biochemistry	58140
3	Urine Analysis	1677
4	Coagulation tests	7072
5	Tumor marker	8548
6	Serology	6606
7	ABG	601
8	Electrophoresis with immunofixation	750
	<b>TOTAL</b>	<b>131087</b>

## B.ACADEMIC ACTIVITIES:

### 1. COURSES AND TRAINING PROGRAMS:

SL NO	NAME OF THE COURSE	DURATION	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1	Certificate course in phlebotomy	1 year	5	5	5
	<b>TOTAL NUMBER OF STUDENTS</b>				<b>5</b>

### 2. ROUTINE ACADEMIC SESSIONS:

Monthly classes for NABL training in the department and in the Division

### 3. OBSERVERSHIP

SL NO	COURSE	INSTITUTION	NUMBER OF OBSERVERS
1	M.Sc. Genetics and biochemistry	SRM University, Chennai	1
	<b>TOTAL NUMBER OF OBSERVERS</b>		<b>1</b>

## Training and courses attended

1. CLSI LQMS course conducted by St. Jude Hospital, USA
2. ISO/IEC 17025:2017 - Risk Management Requirements & Implementation in Laboratories organized by Training and Capacity Building (TCB) Division, NABET, Quality Council of India

## PUBLICATIONS

1. Edakkadath Raghavan Sindhu, Emilin Zacharias, Keezhpally Soman Mini, Therayangalath Bindu, Padippurayil Faizal, Thekkoottuparambil Ananthanarayanan Ajith. Comparison of Analytical Performance of Dry Chemistry Analysers Vitros 5600 and Vitros 250: A Cross-sectional Study, 2025, 14(1), BO01-BO06
2. Prathyusha P, Viswanathan G, Tomcy AT, Binitha PP, Bava SV, Sindhu ER. Lutein and inflammation: a comprehensive review of its mechanisms of action. Explor Drug Sci. 2025;3:100885.
3. Kurup AR, Nandhana S, Dyana K, Mohandoss M, Sindhu ER. Analyzing the Requirement for Screening Platelet Donors for Iron Deficiency: A Critical Appraisal. Int J Pharma Bio Sci. 2024;15(2):B9-17. doi:10.22376/ijpbs.2024.15.2.b9-17.
4. Sindhu ER, Aathira KK, Adarsh D, Padmanabhan M, Nayanar SK. Retrospective Analysis of Serum CA 125 Levels for Staging Ovarian Cancer: Insights from A Tertiary Care Cancer Centre. Int J Pharm Sci. 2024;15(1):B80-87. doi:10.22376/ijpbs.2024.15.1.b80-87.

## CONFERENCE & WORKSHOP DETAILS

1. Attended workshop in systematic review and meta analysis at MCC(PGIOSR)

## STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Dr. Sindhu ER	Assistant Professor
NON ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Mrs. Mini	Lab Technician
2	Mr. Aneesh	Lab Technician
3	Mrs. Soumya	Lab Technician
4	Mrs. Dhanya Prabha N	Lab Technician
5	Mrs. Aneesha	Lab Technician
6	Mrs. Sinsha NP	Lab Technician
7	Mrs. AnusreeValsan	Lab Technician
8	Mrs. Akhila	Lab assistant

## CANCER GENETICS DIVISION

**DIVISION IN CHARGE: DR DEEPAK ROSHAN VG PhD (CANCER BIOLOGY)**

### INTRODUCTION

The Division of Cancer Genetics and Division of Molecular oncology is at the forefront of molecular diagnosis and research aimed at advancing the understanding and treatment of cancer. The division is dedicated to conducting cutting-edge research in various areas, including the identification of anticancer compounds, development of 3D culture systems, and investigation of signaling pathways associated with cancer progression. Division is equipped with high-end diagnostic techniques such as PCR (Polymerase Chain Reaction), real-time PCR, FISH (Fluorescence In Situ Hybridization), and sequencing technologies. These methods enable us to perform precise molecular analyses crucial for diagnosing cancer, predicting treatment responses, and studying genetic mutations underlying oncogenesis.

As part of its commitment to nurturing future leaders in life sciences, the Division is affiliated with Kannur University to offer a comprehensive PhD program. This program focuses on cutting-edge research in cancer genetics, cancer biology, cancer proteomics, and photochemistry providing students with opportunities to contribute to groundbreaking discoveries in the field. The division also offers a one-year fellowship program in Molecular Oncology tailored for MD Pathology candidates. This intensive program equips participants with advanced skills and knowledge essential for pursuing careers in cancer research and molecular diagnostics. Recognizing the importance of continuous learning and skill enhancement, the division provides state-of-the-art PG dissertation facilities for students. Additionally, offering non-stipendiary trainee positions. This initiative aims to bridge the gap between academic learning and practical application, preparing young professionals for successful careers in the biotechnology industry.

### AVAILABLE FACILITIES:

SL NO	NAME OF THE EQUIPMENT
1	DNA sequencer
2	miSeq Next generation sequencer
3	Real time PCR
4	FISH work station

### FACILITIES:

1. Molecular analysis of hematological cancer like : BCR-Abl, PML –RARa, AML panel ALL panel, NPM panel
2. Molecular analysis of Solid tumors like : EGFR mutation,
3. FISH analysis for cancer:- HER2, ALK, ROS, EWSR, SS18
4. MTT assay
5. Real Time PCR expression assay
6. Western blotting

## **NEW EQUIPMENT AND FACILITIES**

<b>SL NO</b>	<b>NAME OF FACILITY</b>	<b>CARDINAL FEATURE OF THE FACILITY</b>
1	FISH CHIMERISAM	To evaluate the status of transplanted cells
2	FISH TRIPLE HIT	To test the Gene abnormalities in Lymphoma
3	FISH FOX O1	To diagnose alveolar rhabdomyosarcoma

## **ACTIVITIES:**

### **A. CLINICAL ACTIVITIES**

<b>SL NO</b>	<b>TEST NAME</b>	<b>NUMBER OF TESTS</b>
1.	BCR ABL QUANTITATIVE	383
2.	BCR ABL QUALITATIVE	49
3.	EGFR	29
4.	PML RARa	42
5.	JAK2	32
6.	AML PANEL	68
7.	ALL PANEL	45
8.	FISH BCR ABL	11
9.	FISH PML RARa	01
10.	FISH ALK	02
11.	FISH ROS	01
12.	FISH EWSR	03
13.	FISH MYELOMA PANEL	62
14.	FISH HER2	37
15.	FISH SS18	12
16.	FISH CHIMERISAM	04
17.	FISH TRIPLE HIT	28
18.	DPYD MUTATION	19
19.	MPN PANEL	41
20.	FISH FOX01	02
	<b>TOTAL</b>	<b>843</b>

### **B. ACADEMIC ACTIVITIES:**

#### **1. COURSES AND TRAINING PROGRAMS:**

<b>SL NO</b>	<b>NAME OF THE COURSE</b>	<b>DURATION</b>	<b>NUMBER OF CANDIDATES</b>	<b>ADMITTED IN CURRENT YEAR</b>	<b>TOTAL STUDENTS</b>
1	PhD in Life Science	5	3	1	3
2	Fellowship in molecular Oncology	1	1	1	1
	<b>TOTAL NUMBER OF STUDENTS</b>				<b>4</b>

## 2. ROUTINE ACADEMIC SESSIONS

SL NO	CLASS DETAILS	DAY
1	Journal club	Friday
2	Class	Wednesday
3	Discussion on selected topic	Last Saturday

## 3. OBSERVERSHIP

SL NO	NUMBER OF OBSERVERS	COURSE	INSTITUTION
1	1	Biotechnology	Chinmaya arts and science collage
2	1	Biotechnology	Atlantic Technical University, UK
3	2	Biotechnology	Amritha school of biotechnology
<b>TOTAL: 4</b>			

## 4. PG DESSERTATIONS

SL NO	NAME	INSTITUTE	TOPIC
1	Akshaya P V	Dr. Janaki Ammal campus, Palayad	To evaluate the anticancer activity of <i>Bacopa Monneiri</i> on triple negative breast cancer cell line MDA - MB 231
2	Aiswarya S	Dr. Janaki Ammal campus, Palayad	3D co culture of breast cancer cell lines & differentiated adipocyte cell lines
3	Anashwar S B	Hindusthan college of arts & science Coimbatore	Study of anticancer effect of Thymoquinone in breast cancer
4	Kavya K	Dr. Janaki Ammal campus, Palayad	Explore the anticancer properties of dapsone in breast cancer
5	Theertha K	Dr. Janaki Ammal campus, Palayad	Assessing anticancer effect of multikinase inhibitor PP121 in breast
6	Sreelakshmi P A	Dr. Janaki Ammal campus, Palayad	Evaluating the anticancer potential of antibiotic doxycycline against breast cancer
7	Anupama Pradeepkumar	Chinmaya arts & science college	Evaluating the frequency of fusobacterium nucleatum in tissue samples from colon cancer patients treated at malabar cancer centre

## PHD DISSERTATIONS

SL.NO	Name	Institute	Topic
1	Athira Raveendran	Malabar Cancer Centre Thalassery	<b>Study the stat and mTOR pathway signaling in CML cell lines with B3A2 and B2A2 subtypes of BCR-Abl fusion protein</b>

2	Pournami P K	Malabar Cancer Centre Thalassery	<b>Evaluating the anti-cancer potential of <i>Tinospora cordifolia</i> derived compounds against breast cancer</b>
3	Premkumar Shenoy V P	Malabar Cancer Centre Thalassery	<b>Study the biology of early-stage oral squamous cell carcinoma with poor clinical outcome</b>
4	Anagha P P	Malabar Cancer Centre Thalassery	<b>Development of an efficient nanoparticle delivery system for enhanced targeting of Triple negative breast cancer</b>

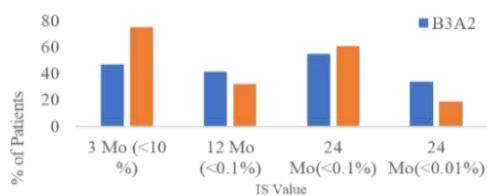
### **C. RESEARCH ACTIVITIES:**

#### **ONGOING PROJECT DETAILS:**

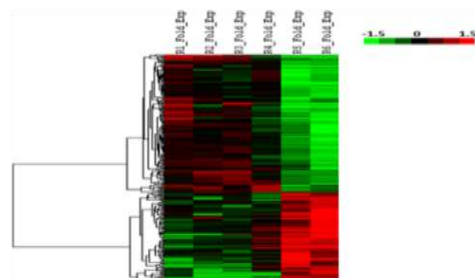
##### **1) Study the stat and mTOR pathway signaling in CML cell lines with B3A2 and B2A2 subtypes of BCR-Abl fusion protein**

Study aimed to analyse influence of B3A2 and B2A2 transcript types on hematological parameters and clinical outcomes. According to the study, B2A2 subtype have faster molecular response than those with B3A2 transcript type. The data resulting from Microarray, RNA seq and MS experiments and observed that metabolic pathways & cancer pathways are the most significantly altered pathways between B3A2 & B2A2.

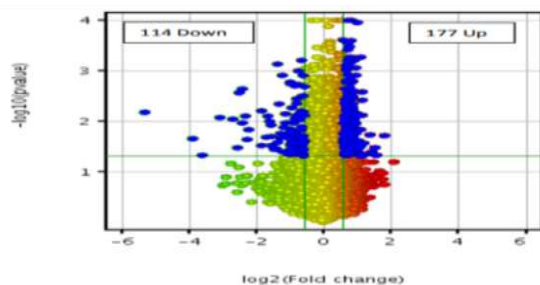
**Response at 3, 12 and 24 months follow up for patients according to transcript type**



**Heatmap of DEGs between B3A2 & B2A2 patient sample. Red: upregulation; Green: Downregulation.**

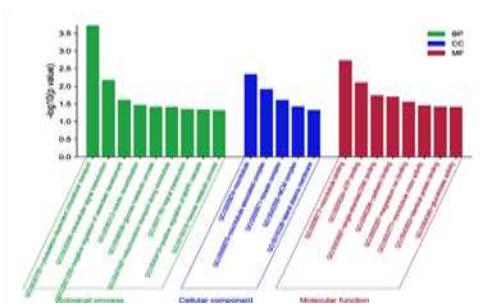


**Volcano plot of differentially expressed genes between B3A2 & B2A2 patient samples. The blue dots represent the significantly differentially expressed genes.**

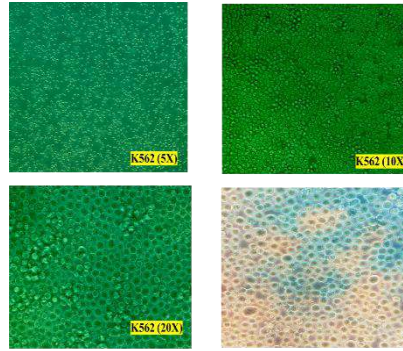


**Gene ontology Enrichment Analysis (cut off P<0.05)**

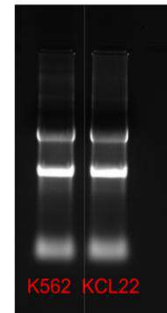
Gene ontology analysis of upregulated genes in B3A2



**K562 and KCL22 culture**



**C) RNA Isolation**

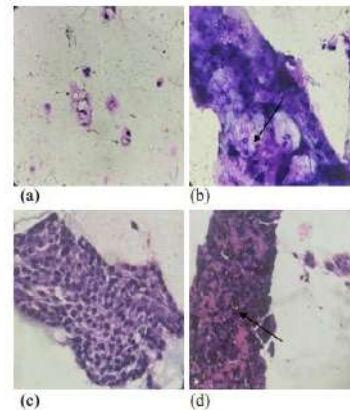


**2) 3D co-culture of breast cancer cell line and differentiated adipocyte cell lines**

In this study, we established a 3D co culture system of MCF7 and adipocytes. Fibrinogen was used as a matrix in combination with agarose, and this helped in maintaining the 3D structures in culture for an extended period. H&E staining analysis revealed tumor similar morphology indicating that we have established an in vitro tumor model.



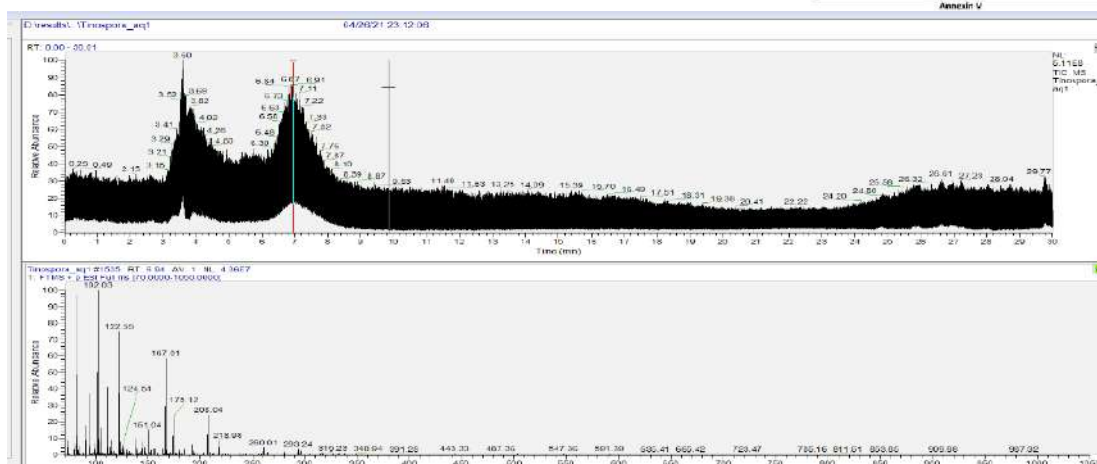
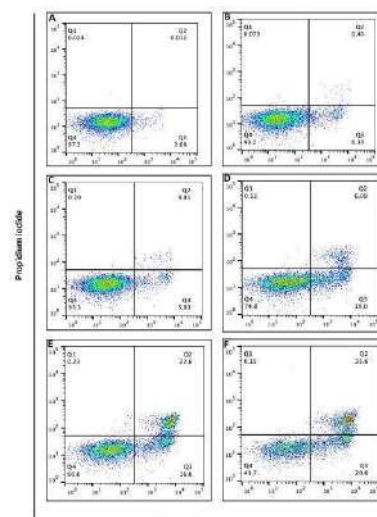
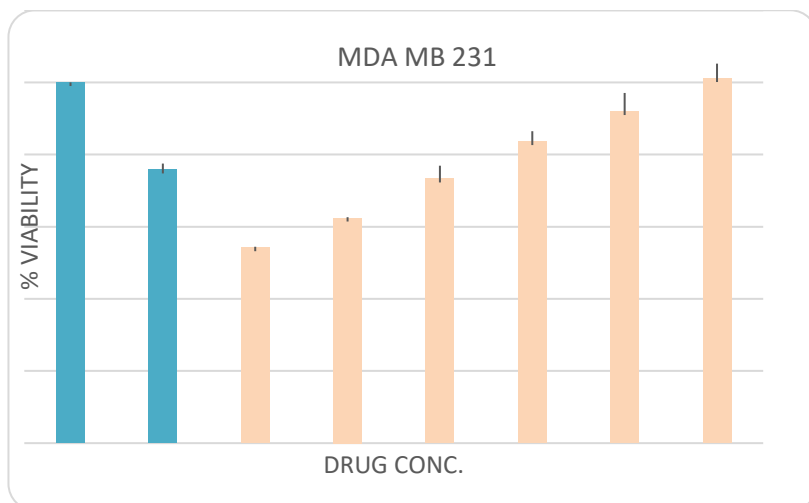
3D culture of (a) 3T3L1 cells (b) 3T3L1 cells kept for differentiation cells (c) MCF7 cells (d) MCF7+3T3L1 cells



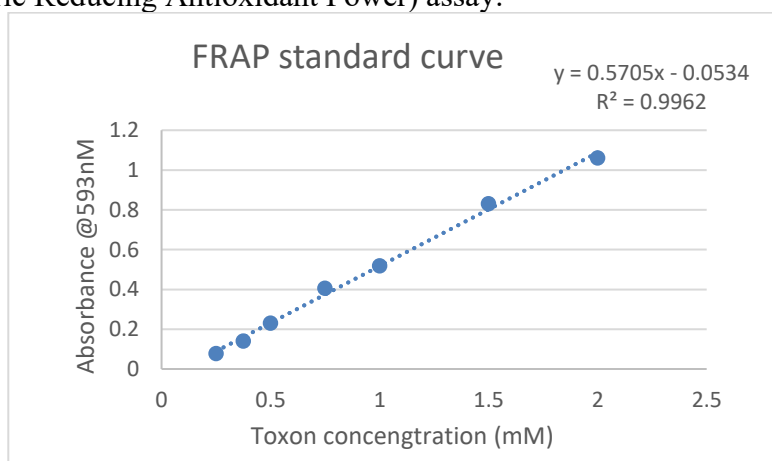
H&E staining of 3D culture of (a) 3T3L1 cells (b) 3T3L1 cells kept for differentiation cells (c) MCF7 cells (d) MCF7+3T3L1 cells under 20X magnification. The arrows show the (e) areas differentiation and (f) population of two types of cells

**3) Evaluating the anti-cancer potential of *Tinospora cordifolia* derived compounds against breast cancer**

We evaluated anticancer effect of *T.cordifolia* in combination with conventional chemotherapeutics on breast cancer. anticancer active fractions and possible bioactive molecule from the *T.cordifolia* are identified. Anticancer potential of identified molecules evaluated on breast cancer cell lines alone and in combinations. These bioactive principles are tested in combination with conventional chemotherapeutic drugs in order to improve their efficacy. The combinations induced apoptosis and cell cycle arrest in breast cancer lines.



Different organic solvent extracts of *T.cordifolia* are assessed for their antioxidative activity using FRAP (Ferric Reducing Antioxidant Power) assay.



Book chapter published: “Antineoplastic Drug Leads from Plants and Microbes”.  
 Drugs From Nature: Targets, Assay Systems and Leads\_E Book. Springer.  
 ISBN 978-981-99-9182-2 ISBN 978-981-99-9183-9 (eBook)

#### 4) Study the biology of early-stage oral squamous cell carcinoma with poor clinical outcome



parameters and prognosis are evaluated. Using Next Generation Sequencing differentially expressed genes were identified. Expression patterns of several genes were processed using microarray.

### 7) Cancer vaccine development against triple negative breast cancer

The proposed study is being conducted in collaboration with Kannur University and Calicut University. The primary objective is to develop a peptide-based conjugate vaccine against triple-negative breast cancer.

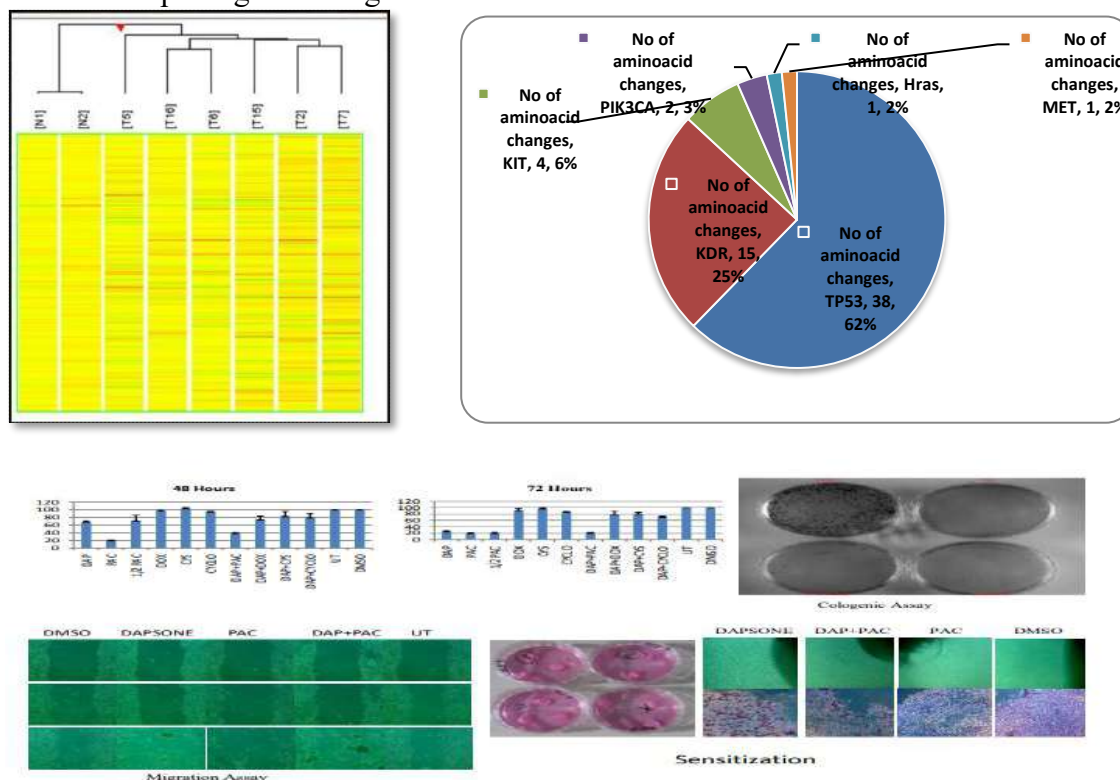
### 8) Develop indigenous dual CART

The proposed study is being conducted in collaboration with Central University, SSSIHL and SRM University. The primary objective is to develop a novel indigenous dual CART.

## PROJECTS COMPLETED IN CURRENT YEAR

### 1) Cytotoxic effect of Dapsone in breast cancer cell line MCF7

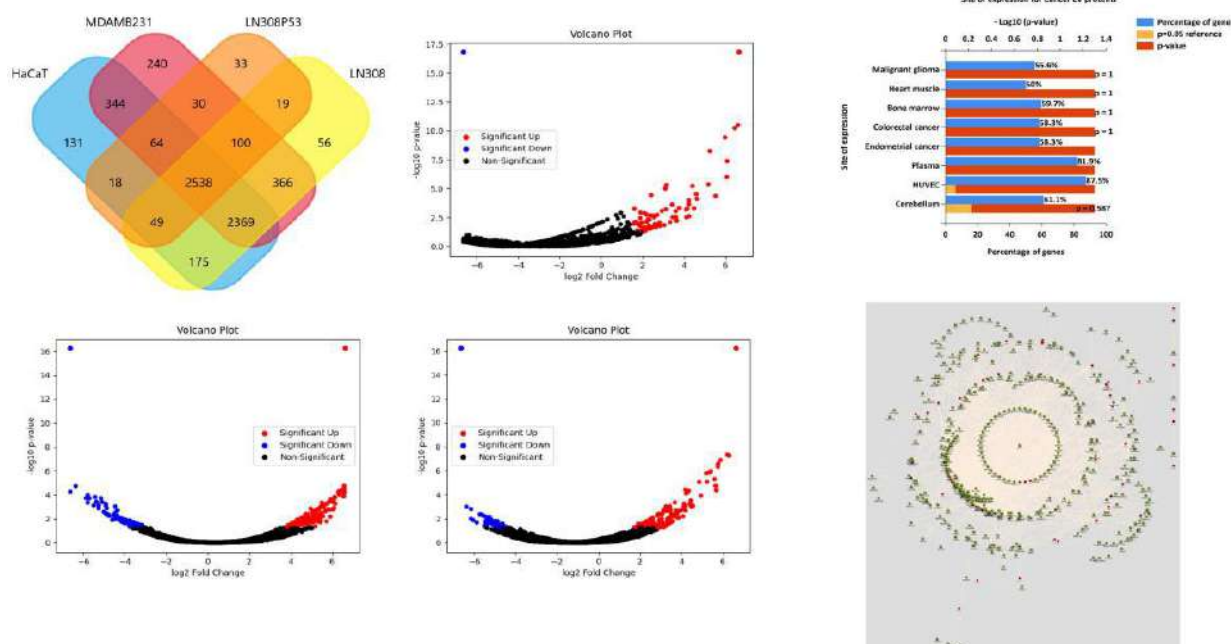
The results demonstrated that Dapsone treatment significantly induced cell death in MCF-7 cells in both a dose-dependent and time-dependent manner. Dapsone exhibited a high cytotoxic effect, with a half-maximal inhibitory concentration (IC50) of 4mM on CF7 cells. Consistently, the antiproliferative effect of Dapsone was linked to apoptosis in breast cancer cell lines, as evidenced by observed morphological changes.



### 2) System wide analysis to identify a circulating exosome-based biomarker for early detection of brain cancer

An extensive investigation was undertaken to explore the proteomic landscape of Extracellular Vesicles (EVs) derived from triple-negative breast cancer cell line MDAMB231, glioblastoma cell lines LN308 and LN308 P53 mutants. Importantly, our research unveiled 32 unique proteins specific to cancerous conditions, which, intriguingly, had not been reported in prior studies or EV protein databases like Exocarta. These newly identified proteins hold promise as novel cancer biomarkers, introducing a fresh perspective to the landscape of extracellular vesicle research.

Figure 1 succinctly encapsulates the comprehensive results derived from the EV proteomic study involving various cell lines.



## PUBLICATIONS:

1. Mohandas S, Gayatri V, Kumaran K, Gopinath V, Paulmurugan R, RamkumarKM. New Frontiers in Three-Dimensional Culture Platforms to Improve Diabetes Research. *Pharmaceutics* [Internet]. 2023 Mar 1;15(3):725.
2. Saha J, Gopinath V, Nair CK, Roshan D. Identification of rare atypical BCR-ABL1 transcript: A case report. *Indian J Pathol Microbiol*. 2023 Jul-Sep;66(3):624-626
3. Nayanar SK, Mohan A, Shenoy P, Saravanan M, Gopinath V, Deepak Roshan VG. Frequency of EGFR mutations in lung adenocarcinoma patients - A study from tertiary cancer center of South India. *J Cancer Res Ther*. 2023 Jan 1;19
4. Dharmarajan A, Gopinath V, Keloth Nayanar S, Velandi Kunnummal S, Balasubramanian S, Roshan Valiyaparambil Gopi D. Genomic analysis of breast cancer patients from Kerala: A novel BRCA1 mutation detected. *Breast Dis*. 2023;42(1):341-347.

## BOOK CHAPTER

1. Pournami, P.K., Rasheed, N., Raveendran, A., Gopinath, V. (2024). Antineoplastic Drug Leads from Plants and Microbes. In: Haridas, M., Abdulhameed, S., Francis, D., Kumar, S.S. (eds) *Drugs from Nature: Targets, Assay Systems and Leads*. Springer, Singapore.

## AWARDS , HONOURS AND RECOGNITIONS:

- Dr Deepak Roshan Member, Board of Studies Biotechnology Kannur University.
- Dr Deepak Roshan Member, Translational Research Center-Kerala University of Health Science
- Dr Deepak Roshan Invited faculty for Faculty improvement program Calicut University
- Dr Deepak Roshan Member Doctoral Review Committee Yanopaya University

- Dr Deepak Roshan Member Doctoral Review Committee KVASU
- Dr Vipin Gopinath Invited faculty for Faculty improvement program Kannur University
- Dr. Vipin Gopinath served as an evaluator for the state-level Young Innovators Programme 4.0, organized by the Kerala Development and Innovation Strategic Council (K-DISC), which took place in Kannur
- Dr. Vipin Gopinath is Nodal officer of IEDC

### **CONFERENCES AND WORKSHOPS ATTENDED:**

1. *Tinospora cordifolia* metabolite library revealed potential compounds for targeting triple negative breast cancer Pournami P K, 35<sup>th</sup> Kerala Science congress, Mar Baselios Christian College of Engineering and Technology, Kuttikkanam, Idukki, 2023.
2. Cytotoxic Effect of Dapsone on breast cancer cell line MCF 7 Swetha K V, , 35<sup>th</sup> Kerala Science congress, Mar Baselios Christian College of Engineering and Technology, Kuttikkanam, Idukki, 2023.
3. Differential metabolic pathway in B3A2 and B2A2 type Chronic Myeloid Leukemia identified using multiomics approach. Athira Raveendran, 35<sup>th</sup> Kerala Science congress, Mar Baselios Christian College of Engineering and Technology, Kuttikkanam, Idukki, 2023.
4. identification of genes associated with prognosis colorectal cancer: A TCGA analysis. Nasheeda Rasheed K, 35<sup>th</sup> Kerala Science congress, Mar Baselios Christian College of Engineering and Technology, Kuttikkanam, Idukki, 2023.
5. Molecular landscapes associated with gut microbiome dysbiosis in colorectal cancer progression - A meta data analysis. Nasheeda Rasheed K UAEU Microbiome Conference 2023.
6. Hereditary mutation profile of bilateral breast cancers- a single institution experience from north Kerala. Anushara Prabhakaran ETBH 2023, RCC Trivandrum.
7. Athira Raveendran, Pournami P K and Premkumar Shenoy attended the 37<sup>th</sup> Kerala Science Congress conducted at Kerala Agricultural University Vellayani, Thrissur
8. Unravelling the Genetic Alterations and Pathways Involved in Oral Cavity Cancer, Anushara Prabhakaran, presented at 37<sup>th</sup> Kerala Science Congress Thrissur.
9. Premkumar Shenoy V P attended ICGCW 2025 a 4-day Conference and Workshop on NGS and Genetic Counselling at ATREC and Tata Memorial Hospital, Mumbai.



## STAFF

<b>ACADEMIC STAFF</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Dr. Deepak Roshan V G	Associate Professor
2	Dr. Vipin Gopinath	Assistant Professor
<b>NON ACADEMIC STAFF</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Mrs. Sreeja K V	Laboratory Assistant
2	Mr. Sreehari O P	Laboratory Technician

## MICROBIOLOGY DIVISION

**DIVISION IN CHARGE: DR. R. PARTHIBAN, M.Sc., Ph.D (MEDICAL MICROBIOLOGY),  
ADDITIONAL PROFESSOR**

### INTRODUCTION

The main focus of the division is to provide high-quality service and improve continuously and innovate Diagnostic Microbiology services. This also helps limit any possibility of nosocomial infections as well. Over the last decade, this division has attained important milestones.

Automated Blood Culture System	- 2013
Real-Time PCR	- 2015
Microbial Identification and Antibiotic sensitivity testing-VITEK-2	- 2017
Anaerobic Chamber	- 2018
MALDI-TOF	- 2019

The Microbiology Division plays a pivotal role within the healthcare system, focusing on diagnostic services, education, and research. Its key responsibilities involve diagnosing infectious diseases associated with hematological cancers and solid tumors caused by various pathogens like bacteria, fungi, and viruses.

The division is proactively involved in creating guidelines to prevent Healthcare-Associated Infections (HAIs) and performs regular monitoring to track infection rates within the hospital. Additionally, it participates in teaching (B.ScMRT & B.Sc Nursing) and actively supports M.Sc and Ph.D. students' research. The division works closely with the hospital infection control committee and conducts environmental surveillance, including air sampling in critical areas, to ensure a safe and hygienic healthcare setting.

### AVAILABLE FACILITIES

SL. NO	EXISTING FACILITIES	PURPOSE
1	VITEK - 2	Automated Bacterial Identification and Susceptibility testing
2	VITEK-MS (MALDI-TOF)	Automated Microorganisms Identification (Rapid)
3	BACT/ALERT -3D	Automated Blood culture System
4	Bactec – 9050	Automated Blood culture System
5	Real-Time PCR	Molecular diagnosis for Infectious diseases
6	GenXpert	Molecular diagnosis for Infectious diseases
7	Anaerobic Chamber	Culture of Anaerobic Microorganisms
8	KingFisher Flex System	Automated Extraction system for RNA/DNA
9	Refrigerated Centrifuge	Used for RNA/DNA Extraction
10	Fluorescence Microscope	For Mycobacterium tuberculosis identification
11	Gradient Thermal Cycler	For Research Purpose

## ACTIVITIES

### A. CLINICAL ACTIVITIES

#### 1. SERVICES OFFERED BY THE MICROBIOLOGY DIVISION

##### A) MOLECULAR TESTING

###### Transplant Associated Infections:

- CMV Quantitative Real time PCR
- EBV Quantitative Real Time PCR
- BK Quantitative Real time PCR

###### HIV and Hepatitis:

- HIV Quantitative Real-time PCR and GeneXpert
- HCV Quantitative Real-time PCR and GeneXpert
- HBV Quantitative Real-time PCR

###### Infectious Diseases:

- COVID – 19 testing – Real-time PCR and GeneXpert
- Drug – resistance – Real-time PCR.
- Antibiotic resistance genes Gradient Thermal PCR.
- Tuberculosis - GeneXpert MTB/RIF

##### B) CONVENTIONAL CULTURE FOR ANAEROBIC BACTERIA

Conventional culture for anaerobic bacteria from clinical specimen other than blood is carried out on the most appropriate media in controlled environment.

##### C) MICROBIAL IDENTIFICATION AND SENSITIVITY TESTING

- Rapid Microbial Identification – MALDI-TOF
- Blood Culture and sensitivity - BACTEC 9050 and BacT/ALERT 3D.
- Automated Microbial identification and susceptibility testing – VITEK 2- compact

##### D) SEROLOGY

- HIV - ECLIA
- HBsAg - ECLIA
- Anti-HCV - ECLIA
- *Clostridium difficile* toxin a & b - ELISA
- Serum galactomannan assay - ELISA
- Widal test
- ASO - Anti streptolysin O Titre
- CRP - C-reactive protein
- RA - Rheumatoid factor
- RPR – Rapid Plasma Reagin

#### 2. QUALITY CONTROL (Q.C.) AND QUALITY ASSURANCE (Q.A)

- Quality control (Q.C.) and quality assurance (Q.A) are strictly implemented and usually authenticated by the reproducible results from other laboratories.

### 3. STATISTICS

SL.NO	NAME OF TESTS	TOTAL NUMBER OF TESTS DONE
1.	Blood Culture And Sensitivity	3709
2.	Urine Culture And Sensitivity	2272
3.	Faeces Culture And Sensitivity	205
4.	Respiratory Culture And Sensitivity	472
5.	Exudate Culture & Sensitivity	1055
6.	Fungal Culture	127
7.	Acid Fast Bacilli Staining	265
8.	Gram Staining	222
9.	Pneumocystis Jirovecii Staining	90
10.	10% Potassium Hydroxide/Wet Mount	173
11.	Rapid Plasma Reagin Test	92
12.	Rheumatoid Arthritis Test	17
13.	Anti-Streptolysin O Test	2
14.	C-Reactive Protein Test	262
15.	WIDAL Test	54
16.	<i>Clostridium difficile</i> Toxin Test	257
17.	Beta Galactomannan Assay	71
18.	Environmental Samples	801
19.	Blood Bank Quality Control Testing	520
20.	Water Analysis	92
21.	Disinfectants	171
22.	Bacterial Identification(Out Side Samples)	93
23.	Molecular Virology (Infectious Disease Testing)	820
	<b>TOTAL</b>	<b>11,842</b>

### B. ACADEMIC ACTIVITIES

#### 1. ROUTINE ACADEMIC SESSIONS

- NABL and NABH-related academic sessions are held every Thursday of the month.
- Certificate course - Molecular techniques in clinical applications

#### 2. OBSERVERSHIP

SL NO	COURSE	NUMBER OF OBSERVERS	INSTITUTION
1	B.Sc MLT	40	Presentation College of Applied Sciences - Kerala 683594
2	B.Sc MLT	29	Lisieux College Of Paramedical Science,Kerala
3	B.Sc MLT	16	Institute of paramedical science, Kannur medical college Hospital Anjarakandy
4	B.Sc MLT	27	Al-Ameen Institute of Paramedical Sciences
5	B.Sc MLT	19	Baby Memorial College Of Allied Medical Sciences

6	M.Sc MLT	4	MIMS College, Calicut
7	M Sc Biotechnology	6	CUTN, Thiruvarur, Tamil Nadu
8	M.Sc Microbiology	2	CMS College, Tamil Nadu
9	B.Sc Medical Microbiology	9	Co-operative Institute of Health Sciences (CIHS)
<b>TOTAL NUMBER OF OBSERVERS: 51</b>			

### **STUDENTS/RESIDENTS/TRAINEES**

SI No	Name of Trainees	
1	Nida Mehaboob	Resident Technician
2	Athira Raj N	Resident Technician
3	Sreedhika P	Resident Technician
4	Amna . K	Resident Technician
5	Liyana . M	Resident Technician
6	Nayila . K.K.V	Resident Technician
7	Rinsha . T	Resident Technician

### **M.Sc PROJECT STUDENT:**

SI No	Name of Project Student
1	Aanchal Ranjith –M.Sc Biotechnology

### **C. RESEARCH ACTIVITIES**

The Division is actively engaged in Antibacterial Resistance mechanisms and Microbiome,

#### **ONGOING PROJECT DETAILS**

- a) Genotypic Analysis of Drug Resistance Klebsiella pneumoniae Isolates from a Tertiary Care Cancer Centre, North Kerala.
- b) Molecular Characterization of Aminoglycosides and Plasmid Mediated Quinolone Resistance among Gram Negative Isolates
- c) Knowledge attitude and Practice of Biomedical Waste Management among Healthcare workers at MCC(PGIOSR)

### **RESEARCH SCHOLAR:**

SI No	Name of Project Student
1	Amrita K P – (Guide - Dr. Sajani Samuel)

### **PUBLICATIONS**

- a. Muthusamy M, Ramani P, Arumugam P, Rudrapathy P, Kangusamy B, Veeraraghavan VP, Jayaraman S, Kannan B, Pandi A. Assessment of various etiological factors for oral squamous cell carcinoma in non-habit patients-a cross sectional case control study. BMC Oral Health. 2025 Jan 13;25(1):62.

## BOOK CHAPTER

- a. **Dr. R. Parthiban** - Novel nano Technologies Associated With Car-T Cell Therapy In Breast Cancer In The Book Entitled “ Hand Book Of Proteases In Cancer (ISBN 978-10-03394-69-3).
- b. **Dr. Saravanan M.** - Methicillin-Resistant Staphylococci Prevalence in Cancer Patients at a Tertiary Care Cancer Centre In the Book entitled “Current Research in Medical Sciences -Edition 2 (ISBN: 979-65-826159-2-3).

## CONFERENCES AND WORKSHOPS ATTENDED

- a) **Dr. R. Parthiban**- Presented a scientific oral paper on “B-CALANO : Blood culture positive alert system “at National conference on “Applied Biotechnological & Biosciences Interventions in New Age Translational Therapeutics” at JSS University, Mysore on 21<sup>st</sup>&22<sup>nd</sup>February 2025.
- b) **Dr. Sajani Samuel** - Presented a paper on Distribution of Resistant Genes Encoding Carbapenemase in Enterobacteriaceae Isolated from Various Clinical Samples in Tertiary Care Cancer Centre at 3rd international conference on clinical and applied microbiology " microbial evolution navigating new frontiers in health care" on 26<sup>th</sup>and 27<sup>th</sup>July 2024 at Bali, Indonesia (hybrid conference).
- c) **Dr. Saravanan** -Presented a paper on Interplay between virulence factors and antimicrobial resistance among clinical isolates of *K. pneumoniae* in North Kerala at International Conference on Emerging and re-emerging Infectious Diseases (iCER-ID 2025) held on 17<sup>th</sup> and 18<sup>th</sup> February 2025, at CSIR-SERC, Taramani, Chennai.
- d) **Dr. Saravanan. M** participated in the Nodal Officers Meet-up and IEDC Summit organized by Kerala Startup Mission in association with National Institute of Technology, Calicut on 18<sup>th</sup>and 19<sup>th</sup> October 2024.
- e) **Dr. R. Parthiban** - Invited speaker-“Diagnostic Techniques in Clinicl Microbiology” at ChinmayaArts and Science College foe Women, Kannur, Kerala on 9th January 2025.
- f) **Dr. R. Parthiban** - Invited speaker and Guest of honor - “Emerging Technologies and their potential impacts on the future of microbiology laboratories” at National Conference – Neotric Advancements in Bioscience and Infectious Diseases, Sona College of Arts and Science, Salem on 21<sup>st</sup>and 22<sup>nd</sup>January 2025.
- g) **Dr. R. Parthiban** - Chairperson – National conference on “Applied Biotechnological & Biosciences Interventions in New Age Translational Therapeutics” at JSS university, Mysoreon 21<sup>st</sup>& 22<sup>nd</sup>February 2025
- h) **Dr. R. Parthiban** - Invited speaker - “Rapid Diagnosticsin the age of super bugs : How microbiologist are staying ahead” at Periyar University , Salem on 11<sup>th</sup>March 2025.
- i)

## **I. TRAININGS ATTENDED**

- a) **Dr. Sarath. K.E** participated in KARS-NET National AMR Surveillance programme jointly organized by National Centre for Disease Control (NCDC) and Government Medical college Thiruvananthapuram, on 18-19 February 2025.
- b) **Mrs. Aswathy Maheswar** - participated in WHONET & Lab Training Workshop for KARS-NET, jointly organised by the National Centre for Disease Control (NCDC) and Government Medical College Thiruvananthapuram, held on 27<sup>th</sup> and 28<sup>th</sup> February 2025.

## STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Dr. R. Parthiban	Additional Professor and Division In-charge
2	Dr. Sajani Samuel	Associate Professor
3	Dr. Saravanan. M	Assistant Professor
4	Dr. Sarath K.E.	Assistant Professor
NON-ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Mrs. Ramitha M.G.	Lab Technician
2	Mrs. Aswathy Maheswar	Lab Technician

## PHOTOS:



## ONCOPATHOLOGY DIVISION

**DIVISION IN CHARGE: DR. SANGEETHA K NAYANAR, MD Pathology, DNB Pathology**  
**DESIGNATION: PROFESSOR**

### INTRODUCTION:

The Division of Oncopathology caters to diagnostic reporting of all registered cancer patients at MCC(PGIOSR). The final diagnosis of the type and nature of cancer is ascertained in the subdivisions of Histopathology, Cytopathology & Haematopathology. The techniques of frozen sections and automated immune histochemistry enables accurate and specialised cancer treatment and outcome for patients. The Division aims to be the backbone of dedicated cancer research in the upcoming field of molecular pathology, as cancer treatment moves into the realm of personalised medicine. It has the latest technology in Molecular Pathology aimed at providing complete diagnostic and prognostic facility. The division is situated in spacious premises to the new laboratory block which is on par with state of art laboratories in India & abroad. Innovative research which can translate into life changing modalities is our dream.

Division of Oncopathology conducts Senior Residency & two Institutional Fellowship programmes for post-doctoral candidates, one in Oncopathology & second in Head and Neck Pathology to foster specialized training and experience in the field. The faculty and residents are encouraged to do original research project and create academic publications & presentations. DNB Pathology was started in May 2019 with an intake of two trainees. DM Oncopathology, a post MD three year super specialty programme under the Medical Council of India was started in 2023 December with an intake of two students

### AVAILABL FACILITIES:

1	AutomatedCoverslipper	01
2	AutomatedTissueProcessor	01
3	Automated H & E Stainer	02
5	Digitalincubatorbacteriological	01
6	Electronictimerwithbattery	06
7	Electricsaw forbonecutting	01
8	Electronicbalance	01
9	Grossingstation	01
10	Hotair oven	02
11	Micropipette	02
12	Cryostat	01
13	pH meter	02
14	Pressurecooker	01
15	Refrigerator	04
16	Rotarymicrotome	03
17	Slidecabinet	10
18	Tissueembedder	01
19	Tissuefloatationbath	02
20	Kitchenweighingbalance	01
21	Hygrometer	04
22	Barcodescanner	01
23	Biosensor-Refrigerator	03
24	Barcodeprinter	01

25	Microscope	21
26	Multiheadteachingmicroscope	01
27	Centrifuge	02
28	Liquidbased cytology–thinpreprocessor	01
29	Trinocularmicroscope	01
30	Automated IHC strainer	03
31	Microwaveoven	01
32	Liquidbasedcytology	01
33	Cyto-centrifuge	01
34	Printer	04
35	Multipurposevortexer	01
36	Biosafety hood	01
37	Hygrometer	04
38	Formalin monitor	01
39	Blood cellcounter	02
40	Slidefilingcabinet	14
41	Blockfilingcabinet	08
42	DigitalPathologysystem	01
43	Flow cytometry	01
44	Desk top PCs	15
45	Photocopier cum Printer	01
46	Digital Pathology	01
47	IHC Machine	02
48	Robotic Cover slipper	01

### **FACILITIES:**

- Services of grossing on automated grossing station on all working days
- Automated tissue processing and staining of biopsy specimens on all working days.
- Cryostat cut frozen sections and intra-operative reporting on all OT days.
- Immunohistochemical staining on automated stainer.
- Diagnostic reporting of surgical tissue specimens by faculty pathologists
- Facility for Fine needle aspiration for OP & IP patients on all days.
- Processing & reporting of FNA & fluid aspiration samples using Cyto-centrifuges and the automated Liquid based cytology which has technical advantages over conventional cytology.
- Diagnostic reporting of Peripheral blood & bone marrow aspiration/biopsy samples with immunophenotyping on Flow Cytometry.
- Receipt & issue of samples and reports through hospital information system.
- Fluorescent Insitu Hybridisation for blood, breast and soft tissue cancers.
- Archiving of tissue paraffin blocks & slides for future reference.
- Academic seminars and discussions for undergraduate & postgraduate students.
- Research projects and publications in collaboration with clinical and research divisions.

### **NEW EQUIPMENT**

SL NO	NAME OF EQUIPMENT	PURPOSE
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1	Robotic Cover slipper	For cover slipping of specimen slides of cells, blood and body fluid
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## ACTIVITIES:

### A. CLINICAL ACTIVITIES

SI No	Name of Tests	Number
1	Biopsy small	2695
2	Biopsy Radical	1701
3	Biopsy Second Opinion	3050
4	FNAC	266
5	FNAC with Cell Block	700
6	FNAC Second Opinion	294
7	Effusion Fluid Cytology	349
8	Effusion Fluid Cytology with Cell Block	387
9	Peripheral Smear	1496
10	Gynaec cytology	290
11	Bonemarrow aspiration	827
12	Bone marrow biopsy	801
13	BM Aspiration 2nd opinion	137
14	BM biopsy 2nd opinion	132
15	Frozen	915
16	Flowcytometry	435
	<b>Total</b>	<b>14475</b>

### B. ACADEMIC ACTIVITIES:

#### 1. COURSES AND TRAINING PROGRAMS:

SL NO	NAME OF THE COURSE	DURATION	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1	DM Oncopathology	3 years	2	2	2
2	DNB	3 years	1	0	1
3	Certificate course in Flowcytometry	1 year	2	2	2
	<b>TOTAL NUMBER OF STUDENTS</b>				<b>5</b>

#### 2. ROUTINE ACADEMIC SESSIONS

SL. NO	DAY	ACADEMIC SESSION/ ACTIVITY	TIME
1	Monday	Journal club	8.30 am
2	Tuesday	Seminar on grossing techniques	3.30 pm
3	Wednesday	Pathboard+ Case Presentation	12.30 pm
4	Thursday	CPC hematology (1 <sup>st</sup> and 3 <sup>rd</sup> Thursday)	2.30 pm

		Topic presentation from Molecular Division (2 <sup>nd</sup> &4 <sup>th</sup> Thursday)	2.30 pm
5	Friday	CPR club (1 <sup>st</sup> Friday)	8.30 am
		Topic presentation (2 <sup>nd</sup> and 4 <sup>th</sup> Friday)	8.30 am
		Post op Pathology discussion (3 <sup>rd</sup> Friday)	8.30 am
		NABL class (Alternate Friday)	3.30-3.30 pm

### 3. OBSERVERSHIP

SL NO	NUMBER OF OBSERVERS	COURSE	INSTITUTION
1	1	PG in Oral pathology and Microbiology.	Kannur Dental College, Anjarakkandy, From April 1-May 31, 2025
2	1	Cytology training	Kannur District Hospital, Kannur from 10/02/2025-14/02/2025
<b>TOTAL NUMBER OF OBSERVERS: 2</b>			

### C.RESEARCH ACTIVITIES:

#### ONGOING PROJECT DETAILS:

1. Evaluation of Histomorphology and Immunoprofile with 1p/19q Codeletion status in Adult Diffuse Glioma ( PI:Dr. Sangeetha K Nayanar)
2. Evaluation of prognostic Significance of p53, Ki67, EMT markers in invasive urothelial carcinoma of urinary bladder(PI:Dr. Sithara Aravind)
3. Profiling of Neuroendocrine neoplasm of Lung (PI:Dr. Sithara Aravind)
4. Prevalence And Evaluation Of Clinico-Pathological Variables Of Ultra Low Her 2 Expression In Breast Cancer Patients, An Initial Experience, From A Tertiary Cancer Centre In Kerala ( PI: Dr. Aswathi Krishnan)

#### COMPLETED PROJECT DETAILS:

1. Pathologic and prognostic characterisation of single hit Versus Double Hit/ Triple Hit High Grade/ Large B Cell Lymphomas (PI:Dr. Sangeetha K Nayanar)
2. Assessment of key immune factors in pathogenesis of HPV associated oral and oropharyngeal squamous cell carcinoma (PI:Dr. Sangeetha K Nayanar)
3. Clinicopathological And Molecular Characterization Of Endometrial Carcinoma – Retrospective Study At A Tertiary Care Center (PI:Dr. Aswathi Krishnan)
4. Histopathological prognosticators in advanced laryngeal squamous cell carcinoma (PI:Dr. Anand Vijaya Narayanan)
5. Utility of systemic inflammation response index as an independent prognostic biomarker in predicting recurrence and survival outcome in early breast cancer patients (PI:Dr. Kandathil Joseph Philip).

6. A retrospective study to assess the role of tumor site on lymph node metastasis and survival outcome in patients who underwent curative intent treatment for carcinoma endometrium (Co I:Dr. Kandathil Joseph Philip).
7. Clinicopathological characterization and survival outcome of primary neuroendocrine neoplasms across female genital system: A 10 year retrospective study (PI:Dr. Kandathil Joseph Philip).
8. Clinicopathologic and genetic profiling of bilateral breast cancer- Extramural research funded by KSTEC(PI:Dr. Sithara Aravind)
9. HALP score in DLBCL(PI:Dr. Sithara Aravind)
10. Role of Systemic Inflammation Response Index as an independent prognostic biomarker in predicting recurrence and survival outcome among clinical stage I-III breast cancer patients (PI:Dr. Kandathil Joseph Philip).

### PUBLICATIONS:

- Paediatric Primary Testicular Follicular Lymphoma : A Diagnostic Challenge.Suhana A, Narayanan AV, Nayanar SK, Jithin TK, Gopakumar KG. Paediatric Primary Testicular Follicular Lymphoma : A Diagnostic Challenge. Online J Health Allied Scs. 2025;24(1):8. Available at URL: <https://www.ojhas.org/issue93/2025-1-8.html>
- Tumor Budding as an Independent Prognostic Histopathological Marker in Oral Squamous Cell Carcinoma - An Indian Tertiary Care Center Experience, DOI: 10.5146/tjpath.2025.13761

### AWARDS/ACHIEVEMENTS:

1. Dr. Sithara Aravind, Additional Professor, presented Oral presentation on Clinicopathologic and Germline mutation profiles of bilateral breast cancer, at a Tertiary Cancer Centre in North Kerala, at the MVR CANCON 2024, held on **29<sup>th</sup> August to 1<sup>st</sup> September 2024** at MVRCCRI Campus, Kozhikode. She bagged first prize in oral presentation.
2. Dr. Sampa Choudhury & Dr. Soundarya Samskruthi Koyya, DM Oncopathology Students got 1<sup>st</sup> and 2<sup>nd</sup> prize respectively in the workshop on grossing techniques of Oncosurgery specimen, held on 11<sup>th</sup> December at Cuttak, Odisha

### CONFERENCES AND WORKSHOPS ATTENDED:

1. Dr. Anand Vijaya Narayanan attended Head and neck cancer summit 16-18 Feb 2024 in Chennai
2. Dr. Saranya Purushothaman, Assistant Professor (Adhoc), presented a presentation on Exploring the trend of multiple primary malignancies- an institutional based study from the Tertiary Care Cancer Centre from North Kerala at the MVR CANCON 2024, held on **29<sup>th</sup> August to 1<sup>st</sup> September 2024** at MVRCCRI Campus, Kozhikode.
3. Dr. Seena Tresa Samuel, Senior Resident, presented a presentation on Role of baseline hemoglobin, albumin, lymphocyte and platelet (HALP) score as a novel prognostic marker for patients with diffuse large b cell lymphoma ; a retrospective analysis from a Tertiary

Cancer Centre in South India at the MVR CANCON 2024, held on **29<sup>th</sup> August to 1<sup>st</sup> September 2024** at MVRCCRI Campus, Kozhikode.

4. Dr. Sampa Chopudhury & Dr. Soundarya Samskruthi Koyya (DM Oncopathology Students) has attended the 93<sup>rd</sup> IAPM, Kerala chapter meeting held on 10<sup>th</sup> August, 2024 at the MES Medical College, Perinthalmanna.
5. Dr. Sampa Chopudhury & Dr. Soundarya Samskruthi Koyya (DM Oncopathology Students) has attended the conference on Embracing the basics - A practical approach to diagnostic pathology held on 8<sup>th</sup> September, 2024 at the KMCT Dental College, Calicut.
6. Workshop On Acute Myeloid Leukemia MRD by Flow Cytometry and NGS by sir Ganga Ram hospital 3<sup>rd</sup> August 2024.
7. 3<sup>rd</sup> virtual symposium on leukemia and lymphoma by CMC Vellore 30-31 August 2024
8. Dr. Sangeetha K Nayanar has attended and participate as a delegate in pre conference workshop titled Head Neck Onco Pathology Master Class : Through The Digital Lens During FHNO 2024 held on 17<sup>th</sup> October 2024
9. 16<sup>th</sup> Annual workshop and conference by The cytometry society 17-18 October in Actrec Navi Mumbai – Dr. Anand Vijaya Narayanan
10. Dr. Sangeetha K Nayanar has attended and participated as a faculty during FHNO 2024 held on 18<sup>th</sup> – 20<sup>th</sup> October 2024 at the Westin Mumbai Powai Lake, Mumbai
11. Dr. Sithara Aravind attended Workshop on Qualitative Research at MCC, in Nov 2024
12. Dr. Anand Vijaya Narayanan attended Workshop on MRD in acute leukemia and myeloma Jan 17-19 2025 at CMC Vellore
13. Dr. Sithara Aravind attended Workshop on Internal Complaints Committee at Trivandrum in March 2025 -
14. Dr. Sangeetha K nayanar attended the 94<sup>th</sup> chapter meeting conducted on 09.02.2025 at Govt. Medical college Kozhikode
15. Dr. Kandathil Joseph Philip presented a E-poster in an International Pathology conference on Advances in Oncopathology of Breast Tumours (ADOPT) organized by Dept. of Pathology, TMC, Kolkata, titled **“Factors influencing restaging to prognostic stage group in early breast cancer patients”** held from 21<sup>st</sup> to 22<sup>nd</sup> February, 2025 at auditorium, phase II, Tata Medical Centre, New Town, Kolkata.
16. Dr. Anand Vijaya Narayanan, attended the , 37<sup>th</sup> Kerala Science congress expo held on 7<sup>th</sup> to 10<sup>th</sup> the February, at Kerala Agricultural University, Thrissur



## STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1.	Dr.Sangeetha.k.Nayanar	Professor& HOD
2.	Dr. Sithara Aravind	Additional Professor
3.	Dr.Aswathi Krishnan M	Associate professor
4.	Dr. Kandathil Joseph Philip	Assistant Professor
5.	Dr. Anand Narayanan	Assistant Professor
6.	Dr.Vivek Nair	Assistant Professor
7.	Dr. Saranya Puruhothaman	Assistant Professor
8.	Dr. KrishnapriyaUmasankar	Assistant Professor

NON-ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Sabna Dev S K	Cyto Technologist
2	Nimi G K	Cyto Technologist
3	Subitha S	Cyto Technician
4	NamithaP K	Lab Technician
5	Biji K R	Lab Technician
6	Preethu Das T K	Personal Assistant
7	Reena K C	Lab Assistant
8	Vishnu Raj N	Attender

## STUDENTS/RESIDENTS/TRAINEES/CONTRACT

Sl No	Name of Students	
1	Dr. Vibha Ravikumar	Senior Resident
2	Dr. Sampa choudhury	DM Oncopathology Resident
3	Dr. Soundary Sanskruthi Koyya	DM Oncopathology Resident
4	Dr. Yaazhini J	DNB Resident
5	Dr. Adya BG	Fellow inOncopathology
6	Dr. Gokulapriya	Senior Resident
7	Dr.Jeena Thomas	Senior Resident
8	Amrutha P B	Lab Technician -Contract
9	Mrs. Darshana Mohankumar	Stipendiary trainee
12	Mohammed Safar O P	Student – Flow Cytometry
13	Sahla K	Student – Flow Cytometry

## TRANSFUSION MEDICINE DIVISION

**DIVISION IN CHARGE: DR MOHANDOSS M, MD, ADDITIONAL PROFESSOR**

### INTRODUCTION:

The division of Transfusion Medicine and Blood Bank was founded in 2002, initially focusing on whole blood collection. By 2006, it had expanded its services to include blood component therapy, making it one of the pioneering centers in North Kerala at that time. In 2013, the facility introduced apheresis for platelet donation and stem cell collection, alongside offering flow cytometry for CD34 enumeration and diagnostic hematology assessments. In 2015, the blood center became one of the earliest in South India to install a Caesium Irradiator for irradiating blood components. The introduction of Nucleic Acid Testing in 2018 allowed for the early detection of infectious diseases in blood donors, aiming to prevent the transmission of viral infections to patients. Finally, in 2021, the blood center inaugurated a cellular therapy lab dedicated to processing stem cells and producing virus-specific T cells for patients undergoing bone marrow transplants.

### AVAILABLE FACILITIES

SL NO	NAME OF THE EQUIPMENT
1.	Apheresis machines for donor and therapeutic apheresis
2.	Automated Blood Grouping Equipment
3.	Automated Blood Component Extractor
4.	Chemiluminescence for infectious disease testing
5.	Nucleic Acid Testing for infectious disease testing on blood donors
6.	Bact/ALERT – blood culture of blood components
7.	Gamma Irradiator – for irradiation of blood components
8.	Flowcytometry – for enumeration of Stem cells
9.	CliniMACS Prodigy - GMP compliant automated cell processing system
10.	Blood Mobile – For conducting outdoor blood donation camps
11.	Thromboelastography – to assess coagulation status

### FACILITIES:

1. Blood Components: The blood centre performs 100% component therapy. The components facility available are Packed Red cells, Platelet concentrate, Fresh Frozen Plasma, Cryoprecipitate and by Apheresis – Platelets, Plasma, Granulocytes
2. Leukodepletion of Blood Components- More than 60% of Red Cells transfused are leukodepleted, which will minimize transfusion reactions in patients requiring regular transfusions.
3. Irradiation of blood components – by dedicated Caesium irradiator. This will prevent Graft versus Host disease following blood transfusions. All hematology and pediatric patients at our centre are transfused with leukodepleted and irradiated blood components.
4. Flow cytometry for CD34 Enumeration, Paroxysmal Nocturnal Hemoglobinuria,
5. Stem Cell Collection and Cryopreservation – The centre has facility for collecting peripheral blood stem cells by apheresis and store them in for later usage.

6. Cellular Therapy Lab – TCRab and CD19 depletion of stem cell product for Graft versus host disease prophylaxis without chemotherapy. Also generation of virus specific T cells for managing post transplant viral reactivation. The centre also has performed a validation procedure for T cell Transduction for generation of CAR T cells.
7. Thromboelastography – to assess perioperative coagulation status for patients undergoing major surgeries.

## ACTIVITIES

### A. CLINICAL ACTIVITIES: (April 2024 to March 2025)

Category	Name of Tests	Number
Immunohematology	Patient Blood grouping	4492
	Crossmatch	3510
	Direct Antiglobulin test	309
	Indirect Antiglobulin test	3018
	<b>Total Immunohematology tests</b>	<b>11329</b>
Flow Cytometry	CD34 Enumeration	82
	Paroxysmal Nocturnal Hemoglobinuria	32
	Lymphocyte Enumeration	16
	Donor Eligibility Test for IFNg	12
	PIDOT	13
	<b>Total Flowcytometry tests</b>	<b>155</b>
Blood Donations	Whole Blood Donations	3806
	Platelet Donations	847
	Stem Cell Collections	37
	Granulocyte Collections	13
	<b>Total Collections</b>	<b>4703</b>
Therapeutic	Therapeutic Plasma Exchange	01
	Therapeutic Phlebotomy	228
	<b>Therapeutic Procedures</b>	<b>229</b>
Cellular Therapy	TCRab Depletion in Stem Cells	04
	IFN –g Specific T cells for Haplotransplant	05
	T cell Transduction for CAR T cells	01
	<b>Total Cellular Therapy procedures</b>	<b>10</b>
Hemostasis	Thromboelastography	15

### Blood Components Issued (April 2024 to March 2025)

Blood Components	No. of Units
Packed Red Cells	1323
Leukodepleted and Irradiated Packed Red Cells	2177
Platelet Concentrates	2201
Single Donor Platelets	1698
Fresh Frozen Plasma	901
Granulocyte Concentrate	13
Cryoprecipitate	141

Units Issued	8454
Plasma sent for fractionation	3076
<b>Total Blood Components Issued</b>	<b>11530</b>

## **B. ACADEMIC ACTIVITIES:**

### **1. COURSES AND TRAINING PROGRAMS:**

SL NO	NAME OF THE COURSE	DURATI ON	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1	Fellowship in Apheresis Medicine	1 year	2	2025	2
2	Certificate Course in Blood Bank Technology	1 year	1	2024	1
<b>TOTAL NUMBER OF STUDENTS: 03</b>					

### **2. ROUTINE ACADEMIC SESSIONS-**

Journal Club – once a week

### **3. OBSERVERSHIP-**

SL NO	NUMBER OF OBSERVERS	COURSE	INSTITUTION
1	1	MD Transfusion Medicine	SCTIMST, Trivandrum April 2024
2	1	MD Transfusion Medicine	Government Medical College, Trivandrum June 2024
3	2	MD Transfusion Medicine	Government Medical College, Trivandrum Jan to Feb 2025
4	1	Blood Centre Medical Officer from Taliparamba TQ – underwent MO training 10.09.24-12.09.24	
6	4	Blood Centre staff from Thalassery Mission Hospital, Thalassery – underwent technician training from 24.03.25 to 26.03.25	
6	3	Blood Centre staff from Indira Gandhi Cooperative Hospital, Thalassery – underwent technician training from 12.11.24 to 14.11.24	
<b>TOTAL NUMBER OF OBSERVERS:12</b>			

## **C.RESEARCH ACTIVITIES:**

### **ONGOING PROJECT DETAILS:**

- 1) Performance Evaluation of the New Automated Hematology Analyser MISPA HX58 and MISPA HX88 (PI:Dr Mohandoss M)
- 2) Perioperative Blood Transfusion in Flap Reconstruction Surgeries for Oral Cancer: A Retrospective Analysis (PI:Dr Mohandoss M)

3) An Audit on Efficacy of Selective Depletion of  $\alpha\beta$  T Cells in Haploidentical hematopoietic stem cell transplantation (PI:Dr Mohandoss M)

**PROJECTS COMPLETED**

**1. Assessment of the cost and apheresis time associated with mobilization approach for lymphoma patients undergoing autologous stem cell transplantation (Dr Mohandoss M)**

In the context of Autologous Stem Cell Transplant (ASCT) for lymphomas at our centre, apheresis and cryopreservation significantly contributes to the overall costs, which can escalate further in the event of mobilization failure or inadequate yields, where plerixafor administered on-demand basis.

The objectives were to estimate the frequency of patients requiring plerixafor and second apheresis at our centre. To estimate the cost and apheresis time involved. To determine peripheral blood CD34 cut off for optimal CD34 yield and to determine a model for optimal cost and apheresis time at our setting.

Results: Out of 49 patients, three had mobilization failure and excluded from analysis. 30 patients received only G-CSF before apheresis and 16 (35%) patients' utilized plerixafor. Table 1 shows distribution and cost estimation. 15 (32%) patients underwent two apheresis sessions (4 with G-CSF alone on D6 and 11 patients with G-CSF + P on D6.) With ROC, PB CD34 count  $>52$  cells/ $\mu$ l predicted yield  $>3 \times 10^6$ /kg with adequate sensitivity of 72% and higher specificity 86%. Cost and apheresis time was better in patients with low CD34 counts on D5 underwent first apheresis on D6 after G-CSF+P.

One third of patients required plerixafor and two apheresis session in our setting. Deferring apheresis for patients with a D5 PB CD34 count  $<52$  cells/ $\mu$ l and performing single apheresis on D6 with the G-CSF +P regimen may help reduce overall costs related to stem cell apheresis and cryopreservation in lymphoma patients

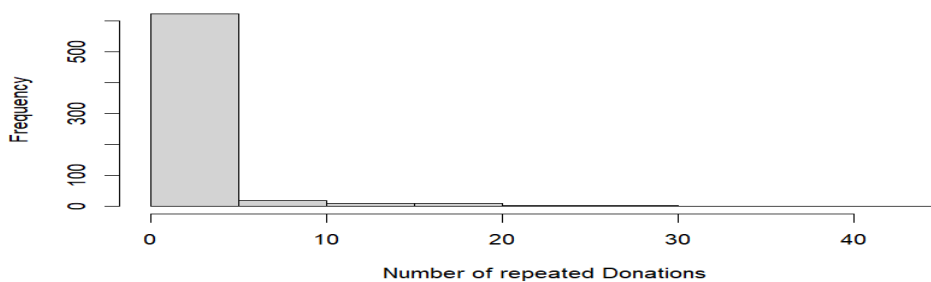
Variables	Unit	G-CSF (n=30)		G-CSF+P (n=16)	
		One Apheresis	Two Apheresis	One Apheresis	Two Apheresis
Number	N	26	4	5	11
Mobilization Regime D5		5d x G-CSF	5d x G-CSF	5d x G-CSF	5d x G-CSF
D5 CD34 Count (Median)	Cells/ $\mu$ l	84	45	9	34
D5 Apheresis yield (Median)	$\times 10^6$ /kg	6.4	2.8	No collection	2.6
Mobilization Regime D6		Not applicable	6d x G-CSF	6d x G-CSF +P	6d x G-CSF + P
D6 CD34 Count (Median)	Cells/ $\mu$ l	Not applicable	40	17	56
D6 Apheresis yield (Median)	$\times 10^6$ /kg	Not applicable	2.8	3.0	4.9
G-CSF Doses (INR160/dose)	No	9	11	11	11
Plerixafor Doses (INR17000/dose)	No	0	0	1	1
Apheresis (INR15000/session)	No	1	2	1	2
Cryopreserved (INR 10000/bag)	Bag	3	6	3	6
Flow CD34 on Peripheral Blood	No	1	2	2	2
Flow CD34 on Apheresis Product	No	1	2	1	2
Cost Involved	INR	57,440	113,760	79,760	130,760

**2. Analysis of Return in Platelet Donor Using Count Data Models (Dr Mohandoss M)**

Annual requirement for platelet donations at our center has increased steadily, surpassing 10% growth each year (2021: 551; 2022: 708; 2023: 779 donations). This rising demand has highlighted the challenge of donor scarcity, with only small percentage becoming repeat donors. This study was done to determine the most suitable model for analysing the count-based nature of platelet donors' data and assessing the factors that significantly influence the likelihood of platelet donors returning for subsequent donations. Retrospective study focused on donors who successfully donated platelets in 2022 and 2023, following them until the end of 2023 to analyze their return donation numbers.

There were 1,487 donations from 668 platelet donors during the study period, with 529 (79.2%) being one-time and 139 (20.8%) being repeat donors (range 2 to 44 donations). Hurdle negative binomial model was the best fit regression model. Among one-time donors, increasing age (OR: 1.051; p=0.03) and being linked to VBD organizations (OR: 33.2; p<0.01) increased the odds of becoming repeat donors. Conversely, being a worker by occupation (OR: 0.76; p=0.02) and single status (OR: 0.46; p=0.03) decreased the odds. For repeat donors, none of the covariates predicted the frequency of their repeat donations. 79% platelet donors were one-time. Factors such as age, employment, marital status, and affiliation with VBD-organizations were associated with higher rates of repeat donations. In repeat donors, no significant covariates predicted the frequency of donations. These insights help tailor strategies to target specific groups and improve donor retention.

**HISTOGRAM OF NUMBER OF REPEATED DONATIONS**

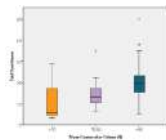
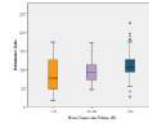
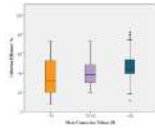


### 3. Impact of MCV of RBC on Stem Cell Leukapheresis Outcomes (Dr Anju R Kurup)

Red cell abnormalities - factor responsible by interfering with the separation of cell layers during leukapheresis. Objective was to evaluate the impact of low mean corpuscular volume (MCV) of red blood cells (RBCs) on the outcomes of stem cell leukapheresis

A total of 114 procedures, 69 autologous and 45 allogenic were included. Seventeen (14.9%) subjects had microcytic RBC. Median CE% of all included procedure was 43.5%. In microcytic RBC, 65% (11/17), while in normocytic RBC, 47% (45/96) had CE<43.5%. Significant differences were observed between microcytic and normocytic RBC groups in terms of CE% (36.8 vs. 44.5; p=0.03), CD34 yield (259 vs. 357 x 10<sup>6</sup>; p=0.02), FE (13.1 vs. 19.7; p<0.01), captured cells (96.4 vs. 116.7; p=0.03), and PR (88.2 vs. 106.3; p=0.03). When stratifying subjects based on preapheresis CD34 count, significance in efficiency noted only in those with CD34+ count > 50 cells/microL. Similarly, impact of MCV was observed in CD34 Yield & FE (p<0.01) only in allogenic setting not in autologous.

Subjects with microcytic RBC experienced reduced efficiency during stem cell apheresis, with this effect being particularly significant when preapheresis CD34+count>50cells/microL and in allogenic collections. Therefore, low MCV should also be considered when evaluating apheresis harvests to optimize collection.



## **CONFERENCES AND WORKSHOPS ATTENDED:**

1. Dr Mohandoss attended CME on Recent Advances in Blood Transfusions and Immunohematology practices at Cancer Institute Adyar, Chennai as faculty and presented “Significance of positive DAT without hemolytic anemia in long term transfusions” on 16-04-24
2. Dr Mohandoss attended ISTM CME 2024 as faculty at Trivandrum and presented “Production of Virus Specific T cells in Allogenic Transplant” on 11.07.24 to 12.07.24
3. Dr Mohandoss attended 12<sup>th</sup> Annual Conference of ISTM (TRANSMEDCON 2024) at Chennai as faculty and presented
  - a. Panel: Transfusions in Liver Diseases
  - b. Poster: Count Data Modeling – “Analysis of Donor Factors on Repeat Donations”
4. Dr. Mohandoss attended Hematocon 2024 at Nagpur from 07-11-2024 to 10-11-2024
  - a. Faculty Invitation: Technical Considerations for Stem cells and Lymphocytes Apheresis for Preconference Workshop;
  - b. Faculty Invitation: Stem Cell Sources, Collection and Preservation – for CME
  - c. Poster: Assessment of cost and apheresis time associated with mobilization approach for lymphoma patients undergoing autologous HSCT
5. Dr Anju R Kurup – attended TRANSCON 2024 at Ahmedabad from 21-23 Nov 2024 and presented “Impact of MCV of RBC on Stem Cell Leukapheresis Outcomes”
6. Dr Mohandoss M – attended ISBTI Kerala Chapter Annual Conference 2025 as faculty and moderated a panel discussion on Revolutionizing Transfusion Medicine Innovations and Insights at GMC, Thrissur on 16.02.2025

## STAFF

<b>ACADEMIC STAFF</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Dr. Mohandoss M	Additional Professor
2	Dr Anju R Kurup	Lecturer
<b>NON-ACADEMIC STAFF</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Mrs Maya PK	Staff Nurse
2	Mr. Sabeesh P	Blood Bank Technician
3	Mr. Sajeesh VM	Blood Bank Technician
4	Mr. Shibir CV	Blood Bank Technician
5	Mr. Anoop Joy	Blood Bank Technician
6	Mrs. Thahira D	Blood Bank Technician
7	Mr. Arun KV	Attender
8	Mrs. Athira K	Blood Bank Technician (KSACS)
9	Mrs. Amrutha K	Blood Bank Technician (KSACS)
10	Mrs. Rogiya KC	Blood Bank Counselor (KSACS)

## DEPARTMENT OF DENTISTRY & REHABILITATION

**HEAD OF THE  
DEPARTMENT**

**DR PRAMOD SANKAR S MDS  
ASSOCIATE PROFESSOR**



### INTRODUCTION:

Rehabilitation, an integral part of the treatment of cancer patients, can open up possibilities to patients on how to treat and compensate for the consequences of cancer diseases and anti-tumor therapy independently in the long term. This comprehensive approach involves multidisciplinary support from diagnosis through treatment and beyond.

### DIVISIONS UNDER THE DEPARTMENT

1. **DENTISTRY**
2. **REHABILITATION ONCOLOGY**
  - i. **PHYSIOTHERAPY UNIT**
  - ii. **SPEECH AND SWALLOW THERAPY UNIT**

### DENTISTRY DIVISION

DIVISION IN CHARGE: DR PRAMOD SANKAR S MDS

DESIGNATION: ASSOCIATE PROFESSOR

### INTRODUCTION:

The Department of Dentistry, established in 2010, expanded its services in 2015. Current offerings include dental cleanings, tooth removal, restorative work, root canals, and various prosthetic solutions such as removable partial dentures, fixed dental prostheses, implants, and maxillofacial prosthetics. The department specializes in dental rehabilitation for cancer patients to enhance their quality of life.

### AVAILABLE FACILITIES:

SL NO	NAME OF THE EQUIPMENT	NUMBER
1	Electronic Dental chair	2
2	Dental scaler units	2
3	Implant Physiodispensor and surgical drill set	1
4	Rotory endodontic equipments	1
5	Digital IOPA Xray	1
6	Low Level Laser Therapy	1

## **FACILITIES:**

1. Dental extractions and impactions
2. Endodontics & Restorations
3. Prosthodontics
4. Paedodontics
5. Maxillofacial prosthesis
6. Dental Implants
7. Low Level Laser Therapy

## **NEW EQUIPMENT AND INITIATIVES /FACILITIES:**

Low Level Laser Therapy (Photo bio-modulation) equipment was procured through CSR funding- Cochin Shipyard Limited. The service will help in reducing Chemotherapy/Radiation Induced Mucositis. The service was started from March 2025.

## **ACTIVITIES:**

### **A. CLINICAL ACTIVITIES:**

<b>STATISTICS- April 2024-March 2025</b>		
<b>SL NO</b>	<b>FACILITIES</b>	<b>NUMBER</b>
1.	OP patients	4450
2.	Extractions	1820
3.	Scaling	72
4.	Complete denture	17
5.	Removable partial denture	18
6.	Fixed partial denture	46
7.	Glass ionomer / +restorations	157
8.	Root canal treatment	78
9.	Obturator	12

### **B.ACADEMIC ACTIVITIES**

#### **1. COURSES AND TRAINING PROGRAMS:**

<b>SL. NO</b>	<b>NAME OF THE COURSE</b>	<b>DURAT ION</b>	<b>NUMBER OF CANDIDATES</b>	<b>ADMITTED IN CURRENT YEAR</b>	<b>TOTAL STUDENTS</b>
1	Senior House surgery program in Dentistry for BDS Graduates	One Year	1	1	1
Total Number of Students:01					

#### **2. ROUTINE ACADEMIC SESSIONS:**

- Morning academic sessions with rehabilitation team (Physiotherapy, speech swallow therapy, Dietetics, Psycho oncology and Palliative) - 2 sessions /week.
- Includes – Lectures, Journal clubs, case discussions and Quality related sessions,

### 3. OBSERVERSHIP

SL NO	NUMBER OF OBSERVERS	COURSE	INSTITUTION
1.	4 (2 weeks observer ship)	Post Graduate students in Prosthodontics	Educare Institute of Dental Sciences, Malappuram
TOTAL NUMBER OF OBSERVERS:04			

### C.RESEARCH ACTIVITIES:

#### **ONGOING PROJECT DETAILS:**

- **Co-PI for the Project** - AI-Driven Large-scale Screening for Oral and Oropharyngeal Cancer (AIDOScan) – In collaboration with CDAC, RCC Trivandrum and Cochin Cancer and Research centre.

### CONFERENCES AND WORKSHOPS ATTENDED:

1. Dr.Pramod Sankar attended 2 days Conference- QICON at Bangalore on 21-22 June 2024.
2. Dr.Pramod Sankar attended MCC In house training on “Qualitative Research” Organised by Dept of Cancer Registry on 23/11/2024.
3. Dr.Pramod Sankar attended IDA state conference at Alappuzha as Delegate from 27 Dec to 29 Dec 2024
4. Dr.Pramod Sankar attended State Conference Organised By INSeR –Quality Horizon in Nursing- Pioneering the change in Patient safety- on 11/01/2025 at MCC PGIOSR as Resource Person & Panelist.

### PRESENTATIONS

**Oral Presentation-** Presented session on **Accreditation in Promoting Quality during** State Conference Organised By INSeR –Quality Horizon in Nursing- Pioneering the change in Patient safety

### STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1.	Dr Pramod Sankar S	Associate Professor

## REHABILITATION ONCOLOGY DIVISION

### SPEECH AND SWALLOW THERAPY UNIT

**UNIT - IN-CHARGE- MR. ANEETH MV- MASLP**

**DESIGNATION: SPEECH THERAPIST**

#### AVAILABLE FACILITIES:

1. Counseling- Pre and post treatment counseling
2. Swallowing assessment- Clinical, subjective and objective
3. Swallowing therapy- Postures, maneuvers and ROM exercises
4. Speech therapy- A Laryngeal speech training
5. Voice therapy

#### ACTIVITIES:

##### A. CLINICAL ACTIVITIES:

STATISTICS- April 2024-March 2025		
SL NO	FACILITIES	NUMBER
1.	Out patients	3665
2.	In Patients	656
3.	Fibreoptic Evaluation of swallowing	233

### PHYSIOTHERAPY UNIT

**UNIT -IN-CHARGE - MS. ROOPA V- BPT**

**DESIGNATION: PHYSIOTHERAPIST**

#### AVAILABLE FACILITIES:

- 1) Continuous passive mobilization machine lower limb
- 2) Gait training unit including parallel bar, stair case corner, orthotics device
- 3) Electrotherapy modality - Interferential Therapy, Transcutaneous Electrical Nerve Stimulation (TENS), Electrical Stimulator
- 4) Exercise Therapy Unit -Tilt Table, Exercise Ball, Shoulder wheel, Over head pulley, Suspension Therapy Unit, Hand grip Exerciser
- 5) Manual therapy and Neuro muscular Rehabilitation
- 6) Orthotics PrescriptionSwallowing assessment- Clinical, subjective and objective
- 7) Swallowing therapy- Postures, maneuvers and ROM exercises
- 8) Speech therapy- A Laryngeal speech training
- 9) Voice therapy

## ACTIVITIES:

### A. CLINICAL ACTIVITIES:

STATISTICS- April 2024-March 2025		
SL NO	FACILITIES	NUMBER
1.	Out patients	2211
2.	In Patients	4410
3.	Chest Physiotherapy	1531
4.	Joint Mobilization	362
5.	Exercise Advise	3217
6.	Neuromuscular Rehabilitation	195

### B.ACADEMIC ACTIVITIES

#### **COURSES AND TRAINING PROGRAMS:**

SL. NO	NAME OF THE COURSE	DURAT ION	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1	Fellowship in Oncophysiotherap y	One Year	2	2	2
Total Number of Students:02					
2	Observership in Speech Swallow Therapy Unit	One month	20	20	20
Total Number of Students:20					

### CONFERENCES AND WORKSHOPS ATTENDED:

#### Physiotherapy Unit

- 1) Ms.Roopa attended Pediatric rehabilitation wokshop Motor Developmental Delay and Early Intervention 5/05/2024 organised by Kerala Physiotherapy Association Kannur Chapter.
- 2) Ms.Roopa attended online webinar -Ankle Equinus and Calf Muscle Bleed Management 10/05/2024 organised by Indian Association of Haemophilia and Allied Disorders
- 3) Ms.Roopa attended online webinar -Role of genetics in Haemophiliat 12/07/2024 organised by Indian Association of Haemophilia and Allied Disorders.
- 4) Ms.Roopa attended lymphedema workshop -MVRCONCON -Calicut 29 / 08 /2024
- 5) Ms.Roopa attended online webinar –Onco –Habitare’24, on 25/10/2024 & 26/10/2024

#### Speech & Swallow Therapy Unit

- 1) Mr.Aneeth participated in a CME ‘HEAD AND NECK CANCER: CONCEPTS & UPDATES 2024’ organized by Baby Memorial Hospital- Kozhikode, on 14 th July 2024 as FACULTY.
- 2) Mr.Aneeth attended FHNO pre –conference workshop 2024
- 3) Mr.Aneeth -Chemo-Radiation Related Dysphagia Intervention: Pre-Habilitation to Rehabilitation in Head and Neck Cancer, Navi Mumbai.on 17/10 2024.

## DEPARTMENT OF NUCLEAR MEDICINE

<b>IN CHARGE</b>	DR NIKHIL MOHAN MBBS, MD (NUCLEAR MEDICINE) ASSISTANT PROFESSOR
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### INTRODUCTION:

The Department of Nuclear Medicine at Malabar Cancer Centre was established in September 2020 under the auspices of the Atomic Energy Regulatory Board (AERB). Clinical services commenced in February 2021 with the introduction of SPECT-CT and PET-CT scanners. Low-dose iodine therapy began in September 2021, followed by the inauguration of a two-bed therapy ward for high-dose radioiodine therapy in November 2021.

As the sole Nuclear Medicine facility in Kannur district and one of two in North Kerala's public sector, the department serves numerous patients from nearby districts and parts of Karnataka and Tamil Nadu.

The year 2022 saw the introduction of targeted therapies using beta emitters, including Lu-PSMA and Lu-DOTA treatments. In 2023, a gallium generator was installed, further enhancing diagnostic capabilities and expanding the range of services available to patients.

### AVAILABLE FACILITIES

SL NO	NAME OF THE EQUIPMENT
1	GE 640 NMCT Gamma Camera Spect Ct
2	Siemens Biograph Horizon PET CT
3	ITG Ge68 Ga68 Automatic Generator
4	Technetium Generator

### FACILITIES:

1. Gamma-Camera Imaging
2. PET-CT Imaging
3. Low dose Iodine Therapy
4. Two bedded High dose Iodine therapy ward
5. Beta Therapy (Lu177PSMA, DOTA, Sm157 Therapy)

### ACTIVITIES:

#### A. CLINICAL ACTIVITIES:

SL NO	FACILITIES	NUMBER
1	PET-CT Scanner	1090
2	Gamma Camera	633
3	High Dose Iodine therapy	340
4	Beta Therapy (Lu177PSMA, DOTA, Sm157 Therapy)	10
	TOTAL	<b>2073</b>

#### B. ACADEMIC ACTIVITIES:

##### **1. ROUTINE ACADEMIC SESSIONS**

Weekly classes on Saturday 11:30am

## 2. OBSERVERSHIP

SL NO	NUMBER OF OBSERVERS	COURSE	INSTITUTION
1	1	INTERNSHIP	SAHS Salam
<b>TOTAL NUMBER OF OBSERVERS:01</b>			

### CONFERENCES AND WORKSHOPS ATTENDED:

- Faculty in Head & Neck complicon Part-2(Dr.Nikhil Mohan)– International Head & Neck Oncology Conference in Sree Shankara Cancer Institute Banglore (24th&25th january 2025)

### STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Dr Nikhil Mohan	Assistant Professor in charge
NON-ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Gireeshma G K	Dosimetrist
2	Al-Ameen K C	Technician

## DEPARTMENT OF PREVENTIVE AND COMMUNITY ONCOLOGY

<b>HEAD IN CHARGE</b>	Dr. NEETHU AP MBBS, MHS Sc Public Health, Ph.D LECTURER
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### INTRODUCTION:

The Community Oncology Department began its full-fledged functioning in January 2010. By 2013, it had relocated to a dedicated space equipped with facilities for tobacco cessation counseling, online public outreach, a specimen museum, a specimen mounting area, and storage for Information, Education, and Communication (IEC) materials. The department has consistently organized cancer awareness initiatives, volunteer training sessions, health exhibitions, school-based tobacco education programs, and community health research across six districts in Kerala (Kozhikode, Kannur, Wayanad, Malappuram, Kasaragod, Palakkad) and Mahe in the Union Territory of Puducherry.

Since its establishment, the department has undertaken various routine activities. From 2011 to March 2025, it has conducted 1463 cancer screening camps, 747 cancer awareness programs, 204 school tobacco programs, 298 volunteer training programs, and 171 health exhibition days. Additionally, regular visits to Associate centers (Early Cancer Detection Centers - ECDC) have been carried out. Malabar Cancer Centre (MCC) has set up Associate centers with early cancer detection capabilities in various locations within Kannur and Kasaragod districts, maintaining regular follow-up visits to these facilities.

The department's activities include:

- 1. Cancer awareness campaigns:** Educational sessions for the general public and healthcare workers in collaboration with various organizations, residential groups, and clubs.
- 2. School-based tobacco and cancer awareness programs:** Anti-tobacco education using audiovisual aids in different schools.
- 3. Exhibitions and health day observations:** Cancer and tobacco-related health exhibitions at public events and schools, with significant public programs on No Tobacco Day and Cancer Awareness Day.
- 4. Training and workshops for community volunteers and school teachers:** Regular sessions on tobacco control and cancer control for community volunteers, members of various Self help Groups, and Teachers
- 5. Training and Capacity building of health workers** including nurses, doctors and other field health staff
- 6. Public awareness competitions:** Organizing painting, literary, and online contests for school children and the general public on tobacco control and cancer prevention.
- 7. Quarterly newsletter:** Distribution of "NETHI," focusing on tobacco awareness for school children.
- 8. IEC material production:** Creating and distributing awareness-generating materials.

**9. Short film screenings:** Showing "U-Turn," a tobacco awareness short film, in schools and public programs.

**10. Community-based research:** Conducting participatory research activities.

**11. Collaborative projects:** Initiating community-focused projects in partnership with universities affiliated with MCC.

**12. Technical support** for various cancer control projects initiated by local self governing institutions, other government agencies and NGOs

**13. Technical assistance** for setting up of early cancer detection facilities, at various health institutions

## **AVAILABLE FACILITIES:**

### **1) Anti-Tobacco Cell**

The anti-tobacco cell was established under the department on 31-10-11 with the purpose of informing students about the dangers of tobacco use. This group includes prominent individuals from various fields such as education, journalism, social activism, writing, and community policing. The unit's Executive Committee is led by Dr. Satheesan B as Chairman, with Dr. Ramachandran V serving as Joint Convener. Dr. Neethu A. P and Dr. Phinse M. Philip act as Member conveners, while Major P Govindan, Dayanandan Master, ChalakkaraPurushu, and Pradeep Master serve as Executive members. The cell is actively involved in anti-tobacco initiatives, editorial work, and the publication of the NETHI newsletter.



Members of Anti Tobacco Cell of MCC(PGIOSR)

### **2) Nethi- The Publication Of Anti Tobacco Cell of MCC (PGIOSR)**

NETHI, a quarterly publication by MCC's anti-tobacco unit, aims to raise awareness among students about tobacco-related health risks. The publication features various creative contributions from students in northern Kerala schools and colleges, including poems, stories, personal accounts, artwork, posters, and cartoons. NETHI is available in both print and digital formats, with the electronic version accessible on the MCC (PGIOSR) website as e NETHI.



### 3) Tobacco Cessation Clinic

Tobacco cessation services were initially offered in the dental OPD in 2011. In 2013, a dedicated clinic was established within the community oncology department after its relocation. The clinic provides treatment for all forms of tobacco addiction, with individuals identified during outreach camps referred to the department OPD. The division also conducts public awareness programs and research on tobacco use. The tobacco cessation OPD operates every Wednesday.



### 4) Museum

The department maintains a museum of cancer-inflicted organs, which is used in health exhibitions to educate the public about cancer.



### 5) Kannur District Cancer Control Consortium (KCCC)

As a part of including socially committed individuals and organizations in the cancer control activities, MCC formed the Kannur district cancer control consortium for cancer control activities. This initiative aims to promote community-based healthcare, raise awareness about cancer prevention, reduce fear and stigma, emphasize cancer curability, and support cancer survivors. The consortium operates under the guidance and technical support of MCC. KCCC was officially launched on February 4, 2021, by the Honorable Chief Minister of Kerala.



### 6) Associate Centers For Early Cancer Detection

MCC has established early cancer detection clinics in various panchayats within Kannur and Kasaragod districts, managed by trained nurses. These clinics are located at Cherukunnu PHC in Kannapuram, Keezhpally PHC in Aralam, Cheruvathur CHC, and Neeleswaram Taluk hospital. Additionally, MCC has partnered with NGOs to set up well-functioning clinics in Alakkode, Chittarikkal, Thomapuram, and Nellikampoyil, in collaboration with Thalassery Social Service Society. A new center was launched in Thamarassery in December 2021.



## 7) CANCER CARE CENTRES

Two cancer care centers operate under MCC's technical guidance: SCDTC Edavanna in Malappuram and Cancer Care Centre THQH Ottappalam in Palakkad district. These facilities offer early cancer detection and basic chemotherapy services, providing accessible and affordable care in areas lacking comprehensive cancer treatment centers. Treatment decisions at these centers are made through MCC-PGIOSR's virtual MSB.

## ACTIVITIES

### A. NEW ACTIVITIES:

- 1. Reels and Trolls Competition for cancer awareness through social media for students and public:** Community oncology department in association with the health IT department decided to conduct monthly **Reels and Trolls** competitions for ten months in ten different topics starting from August. This is in continuation with the Aware Awake programs funded by V guard.
- 2. MCC ECHO community volunteers training program for cancer control:** Through this program, volunteers from community will be trained to disseminate scientific cancer messages in the community. The three month long program consists of seven didactic sessions, case study and exit exams.
- 3. “Arogyam Anandam Akattaam Arbhudam”:** The Government of Kerala has launched an ambitious cancer screening program for the entire state called “Arogyam Anandam Akattaam Arbhudam”. From 4<sup>th</sup> feb to March 8<sup>th</sup>, the program exclusively focuses on women cancer screening. The Preventive and Community Oncology department actively participated in the planning and implementation of the program. A screening desk is also set up at MCC for the service of MCC staff and bystanders.
- 4. Release of 2 books about survivorship-** “SAMARPPAN” (cancer care experiences by health workers of MCC) and “SAYOOJ” (patient experiences of the cancer care journey) on June 23<sup>rd</sup> at a function during survivor meet AMRITHAM 2024.
5. Training of nursing officer and MLSP as part of District cancer control program (4 batches)
6. Training of medical officers as part of District cancer control program

### B. ROUTINE ACTIVITIES:

SLNO	NAME OF ACTIVITY	NO. OF PROGRAMS	NO. OF BENEFICIARIES
1	Public awareness class	28	1006
2	Public awareness webinar	5	327
3	School/College awareness program	14	1097
4	Volunteer /health worker training program	13	512
5	Tobacco clinic observers' training	30	63
6	Health exhibition Days	4	
7	AIDOSCAN Camp	16	611
8	ECDC follow-up clinic	10	98
9	BSc MRT class	7	25

TOBACCO CESSATION CLINIC DATA		
TOTAL	NEW CASE	FOLLOW UP
158	96	62

<b>DATA FROM CANCER CARE CENTRES FUNCTIONING UNDER THE TECHNICAL SUPPORT OF MCC(PGIOSR) (JANUARY, 2023 TO FEB 2024)</b>		
	<b>SeethiHaji Cancer Detection and Treatment Centre, Edavanna, Malappuram</b>	<b>Ottappalam THQH Cancer Care Centre, Palakkad</b>
Total screened	649	Total screened
New cases detected	2cases [1(Ca Breast), 1(Thyroid cancer)]	New cases detected
Total chemotherapy given	1030	Total chemotherapy given

### **C. ACADEMIC ACTIVITIES:**

#### **1. ROUTINE ACADEMIC SESSIONS**

<b>ACTIVITY</b>	<b>NUMBERS</b>
Journal club	10
Seminar Topic presentation	10

#### **2. OBSERVERSHIP AND TRAINING**

<b>SL NO</b>	<b>NUMBER OF OBSERVERS</b>	<b>COURSE</b>	<b>INSTITUTION</b>
1.	1	BSc Psychology	Middlesex university, Dubai
2.	1	MSW	Manglore University, Karnataka
3.	1	MSW	SSUS Kalady, Ernakulam
4.	1	MSW	SSUS Payyannur, Kannur
5.	1	MSW	St Aloysius college , Mangalore, Karnataka
6.	1	MSc Clinical Psycho-oncology	MCC-PGIOSR, Kannur
7.	7	MSW	Centre for PG studies , Calicut University, Bathery, Wayanad
8.	1	MSW	Holy cross college nadakavu, Kozhikode
9.	2	Nurse	Women and Child Hospital, Kannur
10.	1	Gynaecologist	Women and Child Hospital, Kannur
11.	4	MSW	St Joseph's College Devagiri, Kozhikode
12.	1	MSc Counselling Psychology	School of Social Work, RoshniNilaya, Mangalore
13.	1	MSW	St Gregorius College , Parumala, Pathanamthitta
14.	1	MSW	Mount Carmel College, Ernakulam
15.	8	MSW	Ideal College, Thavannur, Malappuram
16.	2	MSc Psycho Oncology	Christ College, Bangalore, Karnataka
17.	2	MSW	University of Kerala, Trivandrum
18.	2	MSc Applied Psychology	Pondicherry University, Pondicherry
19.	1	MSc Applied Psychology	Maharashtra Institute of Technology, Maharashtra

20.	1	BSc Psychology	Fathimamatha national college, Kollam
21.	4	MSW	MES College , Vadakara, Kozhikode
22.	2	Fellow , Onco-physiotherapy	MCC-PGIOSR, Kannur
23.	1	Fellow, Psycho Oncology	MCC-PGIOSR, Kannur
24.	2	MSW	Christ university, Thrissur
25.	1	Project staff, psycho oncology	MCC-PGIOSR, Kannur
<b>TOTAL NUMBER OF OBSERVERS: 50</b>			

### 3. INTERNSHIP

SL NO	NUMBER OF INTERNS	COURSE	INSTITUTION
1	1	MPH	SCTIMST TVM

### D.RESEARCH ACTIVITIES:

#### ONGOING PROJECT DETAILS:

- 1) AI-driven large-scale screening for oral and oropharyngeal cancer (AIDO Scan) (Funding agency: DBT) (PI: Dr Satheesan Balasubramanian)
- 2) Epidemiological profile of indigenous cancer patients: a retrospective study from a comprehensive cancer care centre in northern Kerala, India during the period 2016-2020(PI: Dr Phinse M Philip)

### PUBLICATIONS:

- a) Philip, P., & Kannan, S. (2024). Oral Cancer Control in Kerala, India: A Comprehensive Analysis of Policy Documents from 1988 to 2020. *Asian Pacific Journal of Cancer Care*, 9(2), 357-363. <https://doi.org/10.31557/apjcc.2024.9.2.357-363>
- b) Philip Phinse Mappalakayil, Kannan Srinivasan (2024) **An inquiry into patient versus health system factors contribution to the diagnostic interval in oral cancer: an early diagnosis study from Kerala, India** *ecancer* 18 1745
- c) Ambali Parambil, Neethu; Kannan, Srinivasan. Patterns and stages of breast cancer in Northern Kerala, India; Results based on 2016 Hospital-Based Cancer Registry of a Tertiary Cancer Center. *Journal of Cancer Research and Therapeutics* 20(6):p 1859-1865, Oct–Dec 2024. | DOI: 10.4103/jcrt.jcrt\_2225\_23
- d) Philip Phinse Mappalakayil, Parambil Neethu Ambali, Padmanabhan Maya, Balasubramanian Satheesan (2025) **Cancer awareness through school curriculum: evidence and recommendations from a quasi-experimental study among school children in the State of Kerala, India** *ecancer* 19 1876

### CONFERENCES AND WORKSHOPS ATTENDED:

- a) **CanScreen 5 Asian training:** Dr Neethu A P attended the **CanScreen 5 Asian training with offline component from June to October and face to face component from 7<sup>th</sup> to 10<sup>th</sup> of October 2024 at Bali**, organized by IARC, WHO
- b) **UICC Master Course "Advocacy for improved cancer control"** was attended online from March to June 4<sup>th</sup> by Dr Neethu A P and Dr Phinse M Philip.
- c) **Workshop on Qualitative research methods** on November 23<sup>rd</sup> conducted by Department of Cancer Registry and Epidemiology was attended by Dr Neethu A P and Dr Phinse M Philip.

d) **Workshop on strategic communication campaign of KERALA web portal** on 5<sup>th</sup> December was attended online by Dr Neethu A P and Dr Phinse M Philip.

## EVENTS:

### 1. Activities at Adopted Panchayath-Panniannur

- Activities during this period included training of volunteers in various topics on cancer and field activities by trained volunteers, and post intervention survey.
- **Training of trainers program for volunteer:** 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> TOT in various topics were conducted for volunteers from April to August 2024, followed by field activities by trained volunteers.
- **Training of auto drivers in basic life support**
- **Volunteer training for post survey:** Training was conducted on 12<sup>th</sup> November 2024 at Panniyannur block panchayath hall where 65 volunteers participated in the survey training.
- **Post survey at Panniyannur panchayath:** Students from nursing college (INSER) participated in the survey along with the volunteers from the panchayath
- **Regular monthly review** meeting for assessing activities of the month and planning next month's activities were conducted



- **Field activities in the panchayath**



- **Post test survey training for volunteers at Panniyannur**



- Awareness class for students students in schools of Panniyannur



- BLS training for autodrivers at Panniyannur on 21/5/24



**2. Routine cancer awareness classes for public in various Panchayats**

As part of observing pink ribbon day, Cancer awareness classes for the general public and health workers in collaboration with various organizations, LSGIs, residential groups, clubs, were conducted. The classes will be conducted using audiovisual aids and covers General overview of cancer and Oral cancer, women cancers, training in self breast examination using a mannequin model.

**• Observation of Pink ribbon month in October 2024**



- **Observation of Pink ribbon month in October 2024**



- **Seminar for public on community participation in cancer control on 19<sup>th</sup> Dec 2024**



- **Health exhibition:** Participated in the health exhibition by ‘Thanal, Vadagara’ on 4<sup>th</sup> October and ”AMRITA EXPO” conducted by Amrita Vidyalaya on 30<sup>th</sup> October 24

- **Observation of World Environment Day**

MCC(PGIOSR) in association with KCCC and MCC college BSc MRT students, observed world environmental day by cleaning the MCC(PGIOSR) premises. Thalassery Municipal vice chairman Sri M V Jayarajan inaugurated the program.



3. KCCC Review Meetings and Other Activities



**4. AIDOSCAN (AI-Driven Large-scale Screening for Oral and Oropharyngeal Cancer)**

As part of the Project, community level oral cancer screening camps and training programs were conducted in Kannur District.



Vatakara, Kerala, India  
Vatakara - Villappally Rd, Badagara, Vatakara, Kerala 673104  
Lat 11.600421°  
Long 75.590133°  
04/10/24 11:22 AM GMT +05:30



Kannur, Kerala, India  
V.JRP+M3W, Karetta-Kanjilieri-Maloor Rd, Kerala 670702, India  
Lat 11.801655°  
Long 75.635195°  
03/10/24 10:18 AM GMT +05:30



Puthoor, Kerala, India  
Kidari Bridge, Cheruvanchery - Panoor Rd, Puthoor, Kerala 670068  
Lat 11.77734°  
Long 75.615171°  
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Vatakara, Kerala, India  
Vatakara - Villappally Rd, Badagara, Vatakara, Kerala 673104  
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Vatakara, Kerala, India  
Memunda Jeep Road, Edodi, Vatakara, Kerala 673101, India  
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Kasaragod, Kerala, India  
64X3+RCG, Kasaragod, Kerala 671315, India  
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Kannur, Kerala, India  
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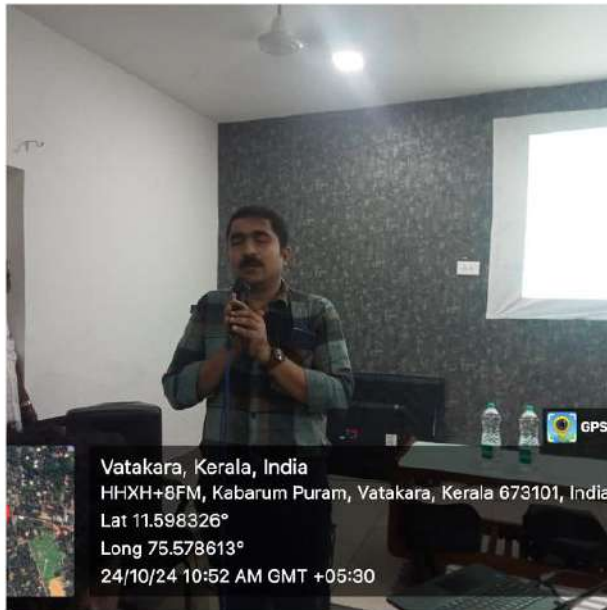


Puthoor, Kerala, India  
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- **Training for volunteers on oral cancer screening as part of AIDOSCAN project in October 2024**



5. World No tobacco day Observation 31<sup>st</sup> May 2024



- **Painting competitions for students**



- **Giant canvas painting of tobacco messages**



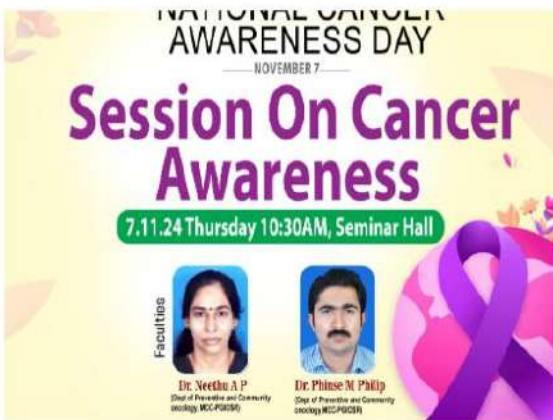
**6. Observation of International day against Drug abuse and illicit trafficking (June 26)**



**7. Release of Nethi –a publication of antitobacco cell**



8. National cancer awareness day observation



**National cancer awareness day observation**



- Seminar for public “Arbudam; Munnettangal Velluvilikal” was conducted on Nov 11<sup>th</sup> at the Vyapara bhavan auditorium, thalassery



- Seminar for public “Arbudam; Munnettangal Velluvilikal” was conducted on Nov 11<sup>th</sup> at the Vyapara bhavan auditorium, thalassery



9. **Environmental cancer risk assessment and water testing at Kannapuram in December 2024**



10. **Training for Medical officers from various institutions in Kannur district in early cancer detection as part of District Cancer Control Program on 14<sup>th</sup> and 22<sup>nd</sup> February 2025**



- Visit of MCC-PGIOSR as part of MO training



**11. Training for nursing staff and MLSP from various institutions in Kannur district in early cancer detection as part of District Cancer Control Program.** 88 nursing officers from various PHC, FHC, Taluk hospital, CHC, GH Thalassery and DH, Kannur were trained in early cancer detection







**12. World Cancer Day observation February 2025 at Jawahar Navodaya Vidyalaya Mahe**



**ലോക കാൻസർ ദിനാചരണം**

മിമി അക കാനർ രോഗം അനുഭവപ്പെടുന്നവർക്ക് തൊഴിലിടങ്ങളിൽ ലഭിക്കേണ്ട സുരക്ഷാ ക്രമങ്ങൾക്കു കേന്ദ്രം ശ്രദ്ധിക്കുന്നു. കേന്ദ്രം പ്രവർത്തിക്കുന്ന സമയത്ത് ക്രമമായുള്ള പരിശോധനകൾ നടത്തേണ്ടതുമാണ്. കേന്ദ്രം പ്രവർത്തിക്കുന്ന സമയത്ത് ക്രമമായുള്ള പരിശോധനകൾ നടത്തേണ്ടതുമാണ്. കേന്ദ്രം പ്രവർത്തിക്കുന്ന സമയത്ത് ക്രമമായുള്ള പരിശോധനകൾ നടത്തേണ്ടതുമാണ്.



- Quiz program



- Street play at Jawahar Navodaya Vidyalaya Mahe by nursing students



- Health exhibition



- Pull up challenge at Thalassery stadium on February 4<sup>th</sup>, 2025



- Literary competition for students



- Awareness rally-flag off by District Judge Sri Nisar Ahammed



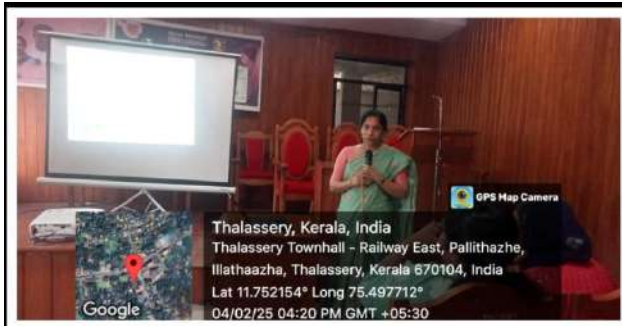
- CME on “Early diagnosis of cancer for primary care physicians: A step towards equitable care” in collaboration with IMA Thalassery on 16 Feb 2025



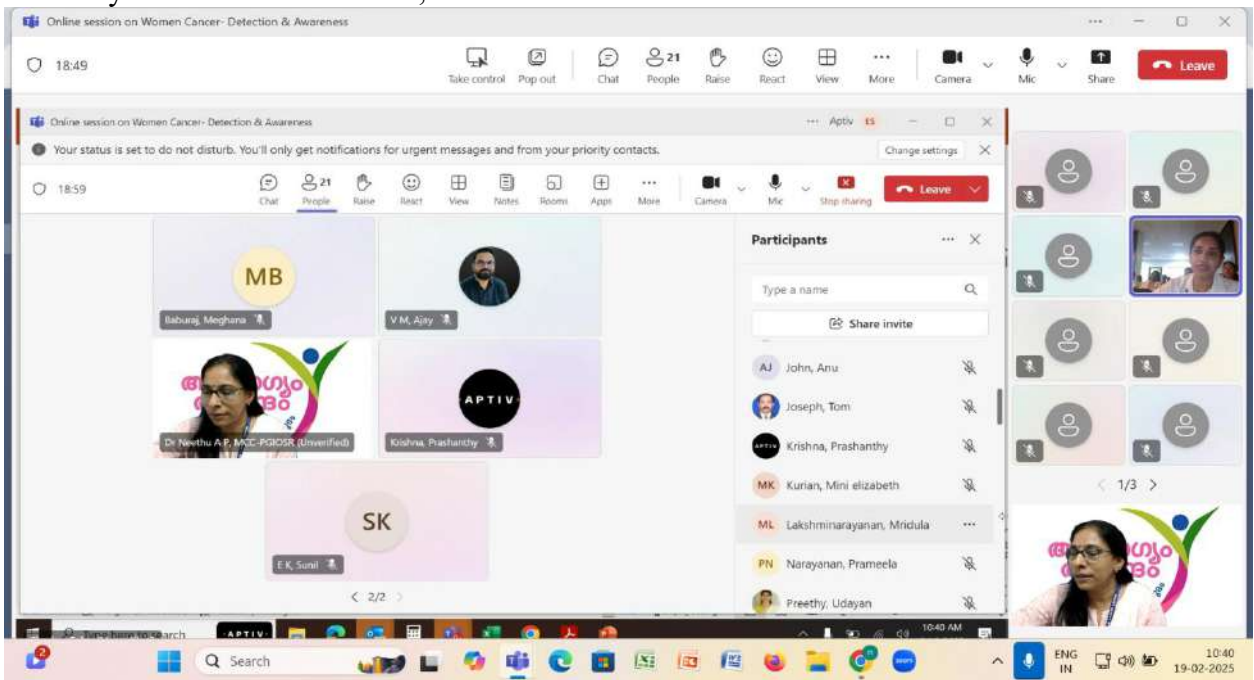
- **MCC(PGIOSR) visit as part of CME**



- Seminar on cancer prevention for Kudumbasree CDS members on 4<sup>th</sup> February 2025



- **Workplace cancer awareness webinar:** for industrial workers at APTIV connections systems India PVT LTD., Ernakulam



- **Work place based awareness at Thalassery railway station on 6/3/25**



**13. Setting of Early Cancer Detection Centres at Primary Health Centres/Family health Centres in Kannur District**

Hands on support for setting up clinic at FHC Kodiyeri, Pazhayangadi, New Mahe, Valappattanam, Eranjoli, Kunhimangalam, Chokli, Keezhallur, Chirakkal, Koodali, Thillankeri, Patyam, Eruvessi, Kolacheri, Thrippongottur, Chandanakkampara, Kolacheri, Kanichar, Koottumugham, Pallikkunnu, Cherkunnu Punnachery, Kanichar, Chengalayi, and Irikur were given.



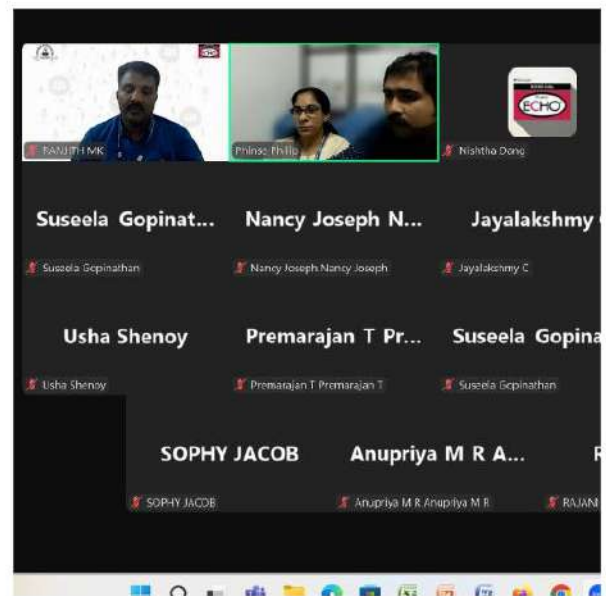
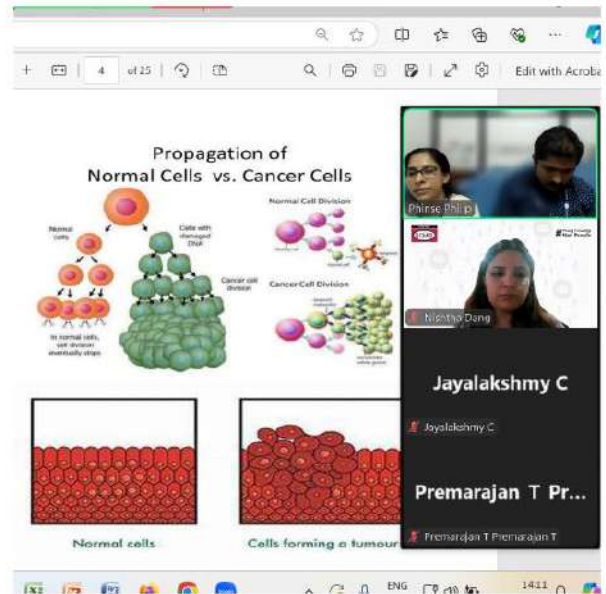
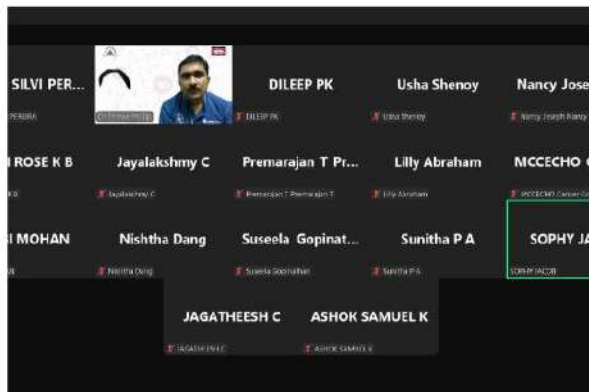
**14. MCC-PGIOSR visit by students on 18<sup>th</sup> February 2025**



- **MCC-PGIOSR visit by NSS students of Darul Arshad Arabis College, Paral on 26<sup>th</sup> September**



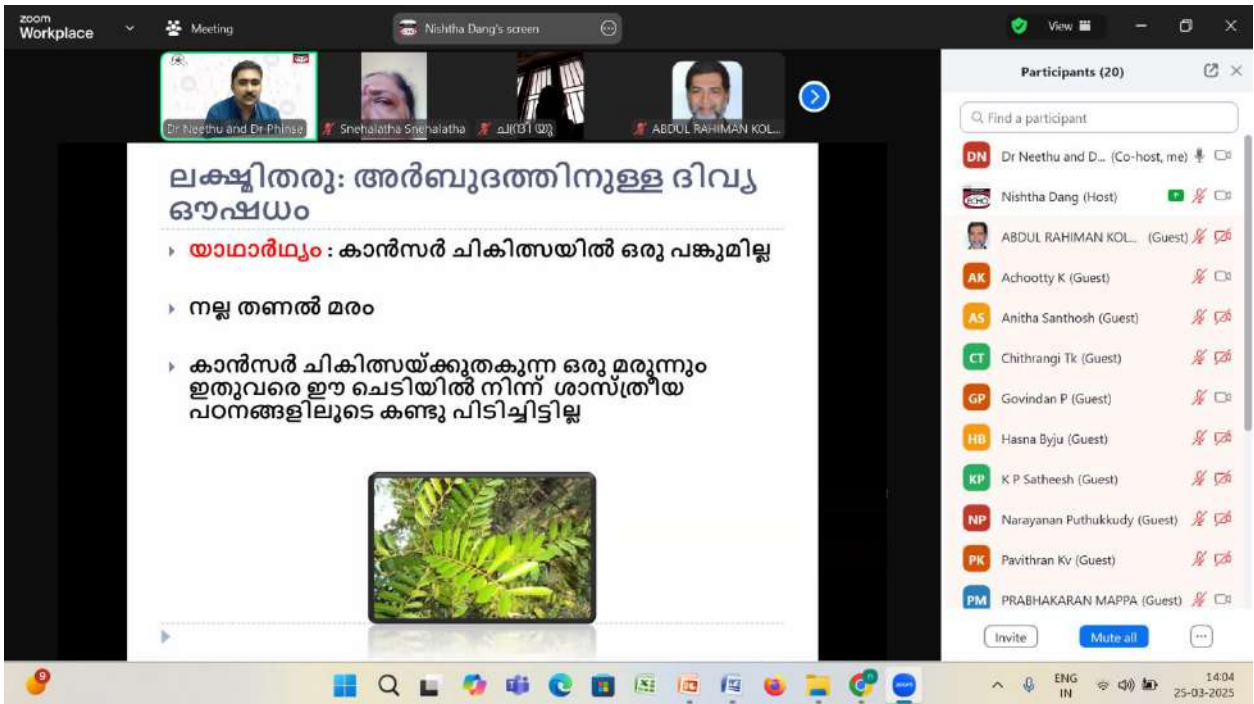
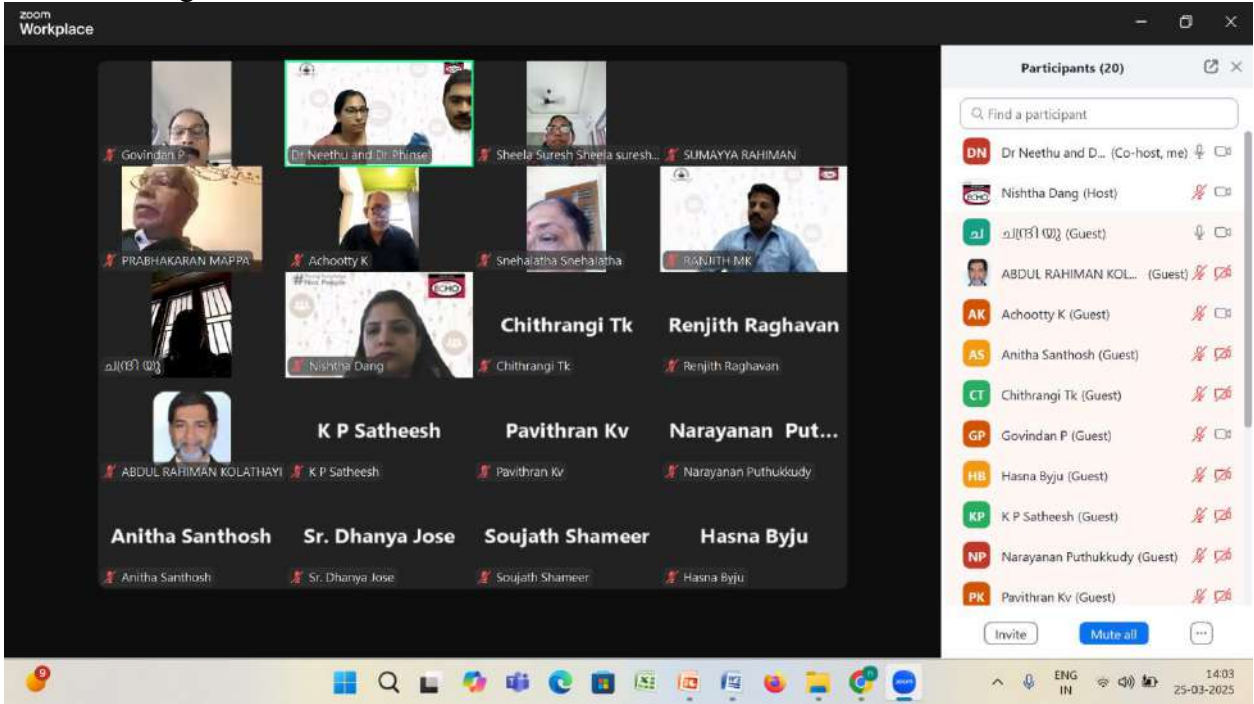
**15. MCC ECHO training program for school teachers on cancer control completed in September 2024.10 teachers received certificates**



- Activities in schools by teachers who received MCC ECHO training



- **MCC ECHO training program for community volunteers on cancer control** was launched on 7<sup>th</sup> January and completed in April 2025. 20 participants completed the training.



## 16. Associate centre at Chittarikkal: Early cancer detection clinic



### STAFF

ACADEMIC STAFF		
SL. NO	NAME OF STAFF	DESIGNATION
1	Dr Neethu A P	HOD-in-charge
2	Dr Phinse M Philip	Assistant Professor
NON ACADEMIC STAFF		
SL. NO	NAME OF STAFF	DESIGNATION
1	Santhosh Kumar K	Lab/ Pharmacy Assistant
2	Nisha T	Nursing Assistant

## DEPARTMENT OF RADIATION ONCOLOGY

**HEAD OF THE  
DEPARTMENT**

**DR.GEETHA M .MD  
PROFESSOR**



### INTRODUCTION:

The Department of Radiation Oncology is equipped to deliver state of art radiation therapy for cancer patients. The department focuses on evidence based clinical practice to provide precision treatment to patients . Beyond clinical services, the department engages in academic pursuits and trains postgraduate students. Research is also a key focus, with staff and students actively participating in and presenting papers at national and international conferences.

### MAJOR MILESTONES

- Department of Radiation Oncology was formed in 2005.
- 2005- Telecobalt machine – ELITE -80 - decommissioned in 2018
- 2007- HDR Brachytherapy unit 16 channel - (Neucleatron). – Decommissioned in 2020
- 2008- Conventional Simulator (Neucleatron- Simulix)- decommissioned in 2018
- 2011 – First High end Linear accelerator (Varian – Clina ix) installed
- 2013 - CT simulator (GE- Optima 580 W)
- 2015- Linear accelerator with FFF and hexapod couch (Elekta – Versa- HD)
- 2017- Telecobalt – machine – Theratron Equinox- Team Best)
- 2019 – Upgraded version of HDR brachytherapy Unit with 20 channels (Elekta- Flexitron)
- 2022- Treatment delivery using Active breath coordinator
- 2023- Started Total Body Irradiation
- 2024 Started Plaque brachytherapy for ocular tumors ( Ruthenium 106- Plaque- BARC)

### DIVISIONS UNDER THE DEPARTMENT

1. **Division of Radiation Oncology**
2. **Division of Radiation Physics**

Both the divisions are interdependent and work in unison. The activities of both divisions are listed together

### AVAILABLE FACILITIES:

SL NO	NAME OF THE EQUIPMENT
<b>TELE THERAPY</b>	
1	Varian Clinac iX Linear Accelerator
2	Elekta Versa HD Linear Accelerator

3	Theratron Equinox Co-60 Teletherapy Machine
<b>SIMULATORS</b>	
4	GE Optima 580 CT simulator
<b>BRACHYTHERAPY</b>	
5	Flexitron – HDR Brachytherapy Unit with 20 channels
6	Plaque Brachy therapy (S/N A082)

**NEW EQUIPMENT AND INITIATIVES /FACILITIES:**

1. Plaque Brachytherapy
2. Total Body Irradiation (TBI) using VMAT technique

**ACTIVITIES**

**A. CLINICAL ACTIVITIES**

- a. Management of patients – OPD consultations, treatment decision, treatment planning , plan evaluation and approval and treatment setup verification, and treatment delivery.
- b. Quality assurance tests done by radiation physicist daily, weekly, monthly and annually and patient specific QA prior to the delivery of treatment planned using advanced treatment techniques
- c. Brachytherapy planning and treatment delivery.

SL NO	FACILITIES	NUMBER
1	In-patients	510
2	Out-patients	19332
<b>Treatment details</b>		
3	Total external beam radiotherapy	2209
4	Patients treated with curative intent	1163
5	Patients treated with palliative intent	1046
6	3Dimensional conformal radiotherapy	308
7	Intensity modulated radiotherapy/ volumetric modulated arc therapy	739
8	Hybrid arc	1
9	Stereo tactic radiosurgery/stereotactic radiation therapy/ stereotactic body radiotherapy	10
10	Active breath coordinator- breath hold techniquebc	23
11	Electron beam therapy	3
12	Electron boost	14
13	Total body irradiation	5
14	Extracorporeal irradiation	0
15	2 Dimensional ( conventional ) radiotherapy	169
16	Brachytherapy total	472
17	Intracavitary application	242
18	Vaginal brachytherapy	224
19	Interstitial implantation	6
20	CT simulation	2164
22	Brachy therapy simulation	253

## **B. ACADEMIC ACTIVITIES**

### **1. COURSES AND TRAINING PROGRAMS:**

SL. NO	NAME OF THE COURSE	DURATION	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1	DNB Radiation Oncology	3 years	2 per year	1	4
2	BSc Medical Radiological Technology	4 years	25	-	100
TOTAL NUMBER OF STUDENTS: 104					

**2. ROUTINE ACADEMIC SESSIONS-**The academic schedule includes topic presentations on Mondays, Tuesdays, and Thursdays, journal club on Wednesdays, and clinical classes on Saturdays. Daily Radiotherapy Board meetings and discussions take place, with chart rounds held on Saturdays. The major activities are;

- a. Daily academic presentations, seminars and journal presentations.
- b. Weekly academic sessions for radiation physics
- c. Clinical case presentations and discussion
- d. Daily Radiation Therapy board discussions

## **C. RESEARCH ACTIVITIES**

- a. Prospective and retrospective studies
- b. Student's thesis

### **ONGOING PROJECT DETAILS:**

- a) Inter-Observer and Intra-Observer Variability in Gross Tumor Volume Delineation of Primary Esophageal Carcinomas **(PI Dr Vinin):** Brachial Plexus Dose In Head And Neck Squamous Cell Carcinoma Patients treated with Volumetric Modulated Arc Radiation Therapy **(PI Dr Akhil P Suresh)**
- b) Clinical Outcome of Solitary Plasmacytoma patients treated with Radical Radiation **(PI Dr Akhil P Suresh)**
- c) Effect of ionizing radiation on hydroxyapatite -an invitro study **(PI Dr Akhil P Suresh)**
- d) Clinical Outcomes In Patients With Pituitary Adenoma Treated With Radiotherapy. **(PI Dr Greeshma K E)**
- e) Survival Outcomes And Factors Associated With Survival In Low Grade Gliomas **(PI Dr Greeshma K E)**
- f) Survival Outcomes In Patients With Non-Endometrioid Uterine Malignancies At A Tertiary Cancer Centre In North Kerala, India – A Retrospective Analysis **(PI Dr Greeshma K E)**
- g) Role Of PET/CT Scan In Post Chemoradiation Response Assessment In Patients With Non Small Cell Lung Cancer **(PI Dr Greeshma K E)**
- h) Role Of PET/CT Scan In Post Chemoradiation Response Assessment In Patients With Non Small Cell Lung Cancer **(PI Dr Greeshma K E)**
- i) Evaluation of hippocampal dose in patients undergoing intensity modulated radiotherapy for nasopharyngeal carcinoma **(PI Dr Joneetha Jones)**
- j) Clinical outcome of carcinoma breast with internal mammary node involvement **(PI Dr Arun P Narendran)**
- k) Survival outcome and pattern of recurrence in de novo oligometastatic breast carcinoma **(PI Dr Arun P Narendran)**
- l) (Survival outcomes and prognostic factors in adenocarcinoma cervix **(PI Dr Megha Prem)**)

- m) Clinicopathological profile and outcomes in young women with endometrial cancer (PI Dr Megha Prem)

## PROJECTS COMPLETED IN CURRENT YEAR

- 1) **Outcomes of high risk localized prostate cancer treated with definitive radiation at a tertiary cancer center in India (PI Dr. Vinin N V)**  
53.70% belonged to high risk group (HR), and 46.30% very high risk (VHR). RT dose of 70 Gy upto 76 Gy were given by VMAT in majority of patients. The mean nadir PSA was 0.032 achieved at average 1.9 years. 10 years OS was 90.74% and DFS was 83.34%, BCRFS of 77.78%. The mean overall survival time was 7.1 years, mean DFS 6.5 years, mean BCRFS 6.3 years. Log rank showed that performance status, Gleason score, and nadir PSA significantly influenced OS and DFS. In addition, comorbidities also influenced the OS. Performance status, T stage, initial PSA levels, nadir PSA value, and time to nadir significantly influenced the BCRFS.
- 2) **Impact of Prescription Point Placement on dose calculation in Conformal Radiotherapy using different planning system Algorithms: ( PI- Silpa AjayKumar)**  
The average mean difference and percentage of variation for carcinoma lung and soft tissue sarcoma patients were calculated from the reference tissue prescription point. The percentage difference in the V95% dose is 4.423% and -1.598% for the dose prescription points at the AAA air-tissue interface and CCC air-tissue interface, respectively, compared to the tissue dose prescription point. No statistical variations were observed for OAR doses. For soft tissue sarcoma cases, deviations were less than 8% when compared with the tissue prescription point treatment plan for treatment MU, mean dose, CI, and HI. Plans with bone-tissue prescription points showed the maximum variation.
- 3) **Parameters Contributing to Out of field scatter from electron applicators used in linear accelerators. ( PI- Dr .Silpa AjayKumar)**  
To estimate the out of field dose from electron applicators used in Varian and Elekta accelerators, dose profiles for various energies (6, 12, 15 MeV), depths (surface, d<sub>max</sub>), collimator angles (0°, 90°) and gantry angles (0°, 15°) were acquired using PTW 2D array seven29 detector. In this study observe secondary peaks outside the applicator field. In most of the combinations, Peaks are more intense in profiles from Elekta compared to Varian. It is observed that, as the energy increases intensity of out of field dose also increases for the profiles measured at surface. For Varian machine, the profiles have peaks between 10cm-17cm from central axis. While it is 18 cm-25 cm for Elekta machine.
- 4) **Penumbra dose characteristics of enhanced dynamic wedge and physical wedge fields (PI Resmi.K.bharathan)**  
Penumbra dose of physical wedge is higher than the enhanced dynamic wedge. Penumbra dose increases when the field size and depth increases for both physical and dynamic wedge
- 5) **Dosimetric comparison of different planning technique for lung cancer to establish an optimal plan for PTV coverage with sparing oar. (PI Resmi.K.bharathan)**  
The Conformity index for VMAT and 3D+VMAT was found to be the highest of all the five techniques (P<0.05), whereas the HI for the 3CRT+IMRT and IMRT technique was found to be the lowest (P<0.05). Lung volume receiving a dose >5 Gy (lung V<sub>5</sub>), the highest value was obtained with VMAT (P<0.05), whereas for lung V<sub>20</sub> there is no significant difference. For esophagus V<sub>50</sub>, the maximal dose (D<sub>max</sub>) and mean dose for the

VMAT techniques showed the best results ( $P < 0.05$ ), and in the case of the spinal cord, the  $D_{max}$  with VMAT and VMATcomp showed a significant advantage over the other techniques ( $P < 0.05$ ). For heart  $V_{60}$  and  $V_{45}$ , VMAT and VMATcomp were found to have very lower values. The treatment monitor units (MUs) in IMRT were found to be the largest ( $P < 0.05$ ).

**6) Monitoring linear accelerator beam parameter consistency using the PTW quick check webline. (PI Resmi.K.bharathan) ( Co PI Aswin)**

From the measurement it was observed that all the readings are consistent and not deviating from the tolerance limit and we can easily use this apparatus as daily QA equipment before the treatment.

**7) Dosimetric evaluation of calculated dose distributions reported as dose to water and dose to medium for nasopharyngeal and oropharyngeal vmat cases using monaco planning system.(PI Suja C A)**

The study evaluated the dosimetric differences between  $D_m$  or  $D_w$  based calculations for nasopharyngeal and oropharyngeal VMAT cases in the radiation therapy treatment planning system (Monaco TPS) using the Monte Carlo-based dose calculation algorithms. The analysis of dosimetric parameters indicates that the selection of either  $D_m$  or  $D_w$  based calculations in the Monaco planning system is less likely to produce any significant clinical effect in tumor control and damage to organs at risk. However, there is appreciable increase in the maximum doses calculated based on  $D_w$  compared to  $D_m$  max in mandible which may not be clinically desirable in PTVs.

**8) Measurement of junction dose between vmat arcs of total body irradiation using two different detector systems. (PI Suja C A)**

The agreement of the measured dose and point doses to within  $\pm 3\%$  suggests that both systems can be used for verification of the junction dose for VMAT TBI plans. Since there is good agreement between the measurements performed by the ionization chamber and the ones calculated by the TPS algorithm, these methods could be used for patient-specific Quality Assurance of junction dose in VMAT TBI.

**9) Estimation of Radiation Level at the Treatment Plane Due to Induced Activity in High Energy Linear Accelerator(PI Suja C A)**

Radiation levels were measured experimentally near the LINAC's head (H), isocenter (I), and 0.5 meters laterally from the isocenter (L) following high-energy photon beam irradiation. The study found that the maximum radiation dose inside the bunker at the measured locations can reach up to 1.00 mR/h, even one minute after high-energy exposure. Consequently, it can be recommended to schedule high-energy treatments toward the end of the working day, and ensure that the jaws are closed to a minimum before entering the bunker, in order to minimize unnecessary radiation exposure to workers.

**10) “impact of changes of fluence smoothing and minimum segment width parameters on vmat plans in monaco treatment planning system”(PI Lisha Jose)**

Based on our results, we recommend applying a high fluence smoothing setting combined with an MSW of 0.8 cm or 1cm for VMAT plans of rectal cancer patients. This combination optimally balances treatment efficiency and plan quality.

**11) “Evaluation of portal dosimetry for Patient Specific Quality Assurance in Volumetric Modulated Arc Therapy”(PI Lisha Jose)**

EPID based portal dosimetry is very useful for the routine VMAT pre-treatment verification because of its easy setup procedure. It is highly efficient to detect errors, because it has high resolution detectors. For more accurate results, more VMAT plans to be included in the study and to be cross checked with other PSQA devices available.

#### **12) Locoregional Recurrence following post-operative Volumetric-Modulated Arc Radiotherapy in Oral Cavity Cancer: Analysis using a Deformable Registration Workflow (PI Dr.Akhil P Suresh)**

With a median follow up period of 19 months, 110 patients (24.8%) had recurrence or second primary. 65 patients (14.7%) had locoregional recurrence alone. Median Disease Free Interval (DFI) was 7 months (0-62). 22 patients with locoregional recurrence were analysed by quantitative special and dosimetric method in our study. Of the 22 patients 12 had local, 8 had regional, and 2 had both local and regional failure. Hence 24 recurrence classification were there. Of the 24 recurrence classifications 13 (54.2%) had type A, 4 (16.7%) had type B, 1 (4.2%) had type C, 5 (20.8%) had type E failures. Among the 14 local recurrences 11 (78.6%) had type A and 3 (21.4%) had type E failures. Type E failures were second primary lesions. Among the 10 regional recurrences 3 (30%) had type A, 4 (40%) had type B, 1 (10%) had type C and 2 (20%) had type E failures. rGTVp median volume was 9.14mL (0.86-44.30). rGTVn median volume was 24.45 mL (2.39-99.83). Factors affecting recurrences (including second primary) includes Overall Stage (p=0.022), depth of invasion (p=0.019), Extracapsular extension (p=0.012), Brandwein Gensler score (p=0.005), Smoking habit (p=0.010), RT dose (p=0.035), Chemotherapy (p=0.000).

#### **13) Comparison of survival among patients with node positive cervical cancer based on t stage (PI Dr Geetha M)**

168 node positive patients were analyzed. Median age was 55 years. Stage IIIC1 and disease were seen in 77.4% and 22.6% of patients respectively. 13.1% of patients had early local stage (I & IIA). Stage IIB, IIA and IIIB were 40.5%, 4.8% and 41.7% respectively. Majority of patients received 50 Gy in 25 fractions (67.9%) and weekly Cisplatin (78%). Boost dose of 55 Gy in 25 fractions was received by 87.5% of patients. 85.1% were treated with ICA. Local, regional and distant recurrence was seen 8.3%, 6% and 15.5% respectively. At median followup of 49.4 months OS and PFS for patients with Stage IIIC cervical cancer was 80.7% and 69.7%. Mean Overall survival for stage IIIC1 for Stage I, II and III was 68.86 months (CI 95%-49.1-88.5), 96.6 months (CI- 85 -108.2) and 97.3 months (CI: 82.2 and 112.4) respectively. For IIIC2 overall survival for local stage I was 63.96 months (CI- 47.3- 80.5), stage II 92.3 months (CI- 79.9 - 104.58) and local stage III it was 98.2 months (CI- 84.3 - 111.9).

#### **14) Analysis Of Radiation Dose Received By Heart In Patients With Left Sided Breast Cancer Receiving Adjuvant Radiotherapy (PI Dr Greeshma K E)**

269 patients were included in the study [(BCS-71.3% and MRM-28.6%)(72% 3DCRT and 14% IMRT using DIBH)]. 14% of patients received IMN irradiation. Recommended DV constraint for V13Gy, MHD, V17Gy, V35Gy and LADCA max were achieved in 79.6%, 14.1%, 85.5%, 81.4% and 13% of patients respectively (Median values-V13Gy-5.9%, MHD-3.8Gy, V17Gy-5.1%, V35Gy-2.1% and LADCA max-38.7Gy). The mean MHD was higher in the IMRT group compared to conventional RT and 3DCRT (p<0.001). MHD (p<0.001), V13Gy (p<0.001) and V35Gy (p<0.002) significantly increased when IMN irradiation was given. Mean V13Gy was significantly lower (p<0.018) and mean V35Gy significantly higher (p 0.038) for BCS patients than MRM patients. No significant difference in V17Gy according to different treatment techniques, regional nodes irradiated

or between BCS and MRM were observed. ABC technique reduced V35Gy compared to 3DCRT( $p < 0.001$ ) and conventional RT(0.8%vs2.5%). ABC technique could significantly reduce LADCAmax compared to 3DCRT.

**15) Analysis Of Dose Received By Cardiac Substructures In Patients With Carcinoma Lung Treated With Radical Radiotherapy(PI Dr Greeshma K E)**

A total of 50 patients were included in the study. The mean PTV volume was 654.7cc. Mean heart dose of 13.6Gy (95%CI 11-16). RCA Dmax achieved was 21.5Gy and LADCA Dmean was 12.7Gy which were comparable with the literature data. The mean doses for Aortic arch, Pulmonary artery and Superior vena cava achieved were higher than the described dose of  $< 8.5$ Gy, which has an impact on overall survival. However, literature data gives comparable results as our study too. The mean left ventricular dose achieved was 8.1Gy (95%CI 5-11) which predicts the chance of increase in percentage of Serum Troponin. V30 for pericardium was 29.2% which was within acceptable limits. However, dose to the base of the heart was higher (Dmax 59.4Gy, Dmean 32Gy).

Right sided structures the heart received a significantly higher mean dose for right sided tumours in our study. The structures include RCA, Aortic root, Ascending aorta, Inferior vena cava, Superior vena cava, Base of the heart, Right atrium and SA node. Similarly, a significant difference with higher dose for left sided tumors was noted for LADCA, Aortic arch, LV and Descending aorta. For centrally located tumors, a significantly higher dose was noted for Aortic root Dmax, Base of the heart V5, Right atrium Dmax and Dmean, Right ventricle Dmax and SA node Dmax and Dmean.

A significantly higher dose volume constraints were achieved for Aortic arch, Ascending aorta, Superior vena cava, Pulmonary artery and Pericardium in node positive patients and dose increased with increasing N status. Among the node positive patients, a higher mean dose was noted for aortic arch, Ascending aorta and Pulmonary artery when mediastinal nodes were irradiated.

**16) 90 day mortality following radical radiotherapy in head and neck cancers(PI Dr Joneetha Jones)**

This was a retrospective study done at the department of Radiation Oncology Malabar Cancer Centre. All patients with head and neck cancers treated with definitive radiation or chemoradiation treatment from period 1<sup>st</sup> January 2015 to 31<sup>st</sup> December 2020 at our center were included. A total of 292 patients underwent curative intent radiation for head and neck malignancy during the study period. 92% were males and rest were females. 86% of patients had history of smoking and 70% had history of alcoholism. 39% of patients had history of comorbidities. 42% of patients had carcinoma oropharynx followed by carcinoma larynx. 56% of patients had T3 and T4 Disease. 59% had node positive disease. 77% had stage III and stage IV disease at presentation. 69% patients had chemoradiation, 29% patients had radical radiation alone and 2% had induction chemo followed by chemoradiation. Out of 292 patients 6 patients died within 90 days of treatment. The 90 day mortality in this study was 2.05%.

**17) Outcome in male patients with breast cancer treated at a tertiary cancer center-10 year experience.(PI Dr Joneetha Jones)**

This was a retrospective analysis of all male patients diagnosed with breast cancer. All male patients diagnosed with breast cancer from the period of January 2010 to December 2020 were included in the study. A total of 49 patients were included in the study. The median age of our study population was 67 years. 51% of patients had ECOG performance status of 0 or 1. 22% had history of smoking and 16% had history of alcoholism. 61% had left sided breast cancers. 60% of patients had stage III and stage IV disease at presentation. 94%

of patients had invasive duct carcinoma histology.82% had ER and PR positivity and 19% had her 2 neu positivity.29 patients underwent curative intent treatment.The median follow up time was 96 months.The 3 and 5 year DFS were 69% and 64%.The 3 and 5 year OS was 72% and 50% respectively.

**18) Analysis of dose to Lung and Heart in Preoperative Chemoradiation for Esophageal Cancer (PI Dr Nabeel Yahiya)**

All the patients (n=33) included in this study completed neoadjuvant radiotherapy. 22patients were proceeded to surgery of which 4 patients expired post operative period.Two patients progressed before surgery; 4 patients defaulted after radiotherapy and 5patients were treated with definitive radiotherapy. Grade III neutropenia were seen in 4patients (12 %) of cases. The R0 resection rate was 90.9 % and the pCR (ypT0N0) in ourstudy was 45.4 %. Median OS in this was 24 months.

**19) Treatment patterns and outcomes among patients with small-cell lung cancer (SCLC): A Retrospective Study(PI Dr Nabeel Yahiya)**

The median age was 63 years (range 39–80), with a male predominance (95.6%). Most patients had a history of smoking and poor performance status (ECOG PS 2–3). Extensive-stage disease (ES-SCLC) was seen in 75.1% of patients, and 44.1% had metastases at multiple sites. The majority (90.6%) were treated with palliative intent. Among limited-stage patients (LS-SCLC, n=45), 37.8% received radical intent therapy, primarily chemoradiation, while 53.3% received palliative treatment. In ES-SCLC patients (n=136), 75% received palliative treatment and 25% received only best supportive care.The median overall survival for the cohort was 5 months (range &lt;1–80 months). The 1-, 2-, 3-, and 5-year overall survival (OS) rates were 27.6%, 7.7%, 4.4%, and 1.1%, respectively. Survival was significantly better in patients with limited-stage disease and those receiving radical intent treatment.

**20) Clinical outcome of carcinoma breast with sub-centimetric internal mammary node(PI Dr Arun P Narendran)**

There were 191 patients for analysis. 65 patients had IMN nodes identified in this study. Average Long axis size of IMN in this studywas 6.2mm and average short axis size of IMN node was 4.7mm. 49 patients (25%) had subcentimetric IMN nodes and 2 patients had centimetric IMN. IMN size criteria for the study was analyzed in 10 ways. Size criterion  $\geq 6\text{mmLA}$  had more percentage of recurrences in the IMN positive group. There were 41 recurrences. 35 were distal recurrences.Parity is a patient related factor predicting IMN positivity. Regression analysis showed a coefficient of 0.069 with 95% CI from 0.007 to 0.131 with p value =0.03. Central and medial quadrants had IMN positivity 39% verses 19% in lateral quadrants. Except Luminal A type all other subtypes had more than 25% IMN positivity. Among the tumor related factors, the T-category (T4 versus other T stage) and the stage category (third stage versus other stages) turned out to be significant, with p values 0.006 and 0.01. 5-year overall survival of the entire population was 94.2%. 5-year Disease free survival was 79.6%. 5-year OS with 6mmLA size cut-off were 96.5% and 82.2% again not significant but showing a trend towards significance with P value =0.16. 5-year Recurrence free survival in the IMN positive group (6mmLA cut-off) was 78.6% versus 79.6% in the IMN node negative group. The difference was not significant.

**21) Radiation therapy in DNA repair related Tumor Suppressor Gene germline mutation carrier patients(PI Dr Arun P Narendran)**

There were 14 patients in the study. Except one patient all others were treated with curative intent adjuvant radiation therapy. Patient number 13 was treated with multiple palliative

schedules. • After a median follow-up period of 71 months (range 13 months to 117 months) 12 patients are alive among which 9 are disease free. • Toxicity data : There were no grade 3 acute or chronic toxicity. Grade 1 dermatitis, breast edema, lymphedema and breast/ chest-wall pain were the frequent toxicities noted in the adjuvant Radiation group. Highest grade of acute morbidity was grade 2 diarrhea noted in a patient receiving radiation oophorectomy and grade 2 breast pain. • Second Primary: 6 patients developed second primary cancers. Three of them were opposite breast primaries. One patient developed endometrial primary and another patient developed an appendiceal neoplasm. Non was categorized as radiation induced. 50% (3/6)of the BRCA1 pathogenic mutated patients developed contralateral breast primary with different biology after a median interval of 42 months. 1 patient among them had a pathogenic p53 mutation in addition.

- Palliative intent radiation therapy was given in three patients(two with BRCA2 pathogenic mutations and one with FANCA VUS). There was either partial or complete response in all the palliative radiation treatment given. Both XRAM treatment attained complete response. • Recurrences: The one regional recurrence (BRCA2 patho) was in the IMN nodal chain which was not included in the radiation field in the adjuvant radiation. One patient with BRCA1 VUS developed infield recurrence after 74 months.

## **22) Prognostic impact of FIGO 2023 staging system in carcinoma endometrium with high risk histology(PI Dr Megha Prem)**

The study included women aged 40–80 years (mean: 59.2), with serous carcinoma being the most common histology. Most were parous (91%) and 22% were obese; 67% had comorbidities such as CAD, hypertension, diabetes, or hypothyroidism. Myometrial invasion was >50% in 56 cases, and 72% received adjuvant treatment (mostly chemotherapy followed by radiation). However, only 39% completed both chemotherapy and radiation, with toxicity (e.g., neutropenia, neuropathy) being the leading cause of discontinuation.

FIGO 2009 staging ranged from IA to IVB, while 2023 staging upstaged 51.7% of early-stage cases to IIC. Stage shifts (not true upstages) occurred in 20%. At a median follow-up of 65.2 months, there were 20 recurrences (mostly distant, primarily lung). The 5-year survival dropped from 91.5% in year 1 to 55%. FIGO 2009 and 2023 showed similar survival trends across stages, though FIGO 2009 had a slightly better model fit (AIC 279.659 vs. 280.322). Despite added complexity, FIGO 2023 offered limited benefit in hazard prediction.

## **23) W Dosimetric evaluation of tubarial salivary glands in radiation therapy for head and neck cancers : analysis of a new organ at risk consideration(PI Dr Bindiya Vijayan)**

Significant associations between TSG radiation dose (combined as well as ipsilateral and contralateral TSGs) and tumor site ( $p < 0.0001$ ), nodal stage ( $p < 0.0001$ ), and overall stage ( $p < 0.0001$ ). Consistent with prior studies, oropharyngeal tumors received the highest TSG dose due to anatomical proximity. Oropharynx received the highest mean radiation dose ( $p < 0.0001$ ), followed by Hypopharynx, then Larynx, with significant differences in dose among them. The most significant difference is between Oropharynx and Larynx (-44.60 Gy). Advanced nodal stages were associated with higher doses, with N3b cases receiving the highest mean dose ( $p$  value  $< 0.001$ ). This aligns with the theory suggesting that advanced nodal disease often necessitates larger treatment volumes, inadvertently increasing radiation exposure to surrounding structures. Overall stage also showed significant association, with advanced stages receiving maximum mean dose (highest with IVB stage,  $p$  value  $< 0.001$ ). However, no significant correlation was observed between

TSG dose and tumor T-stage ( $p = 0.36047$ ), suggesting that beam arrangement and dose constraints may play a more critical role than primary tumor volume alone.

### PUBLICATIONS:

1. Ajaykumar S. Dosimetric comparison with different arc and beam VMAT optimization in the Monaco treatment planning system. *Asian Pac J Cancer Care*. 2025;10(2). Accepted Jan 27, 2025.
2. Bharathan RK. Feasibility study of shielded diode detector for small field dosimetry. *Radiat Prot Dosimetry*. 2024;200(11–12):1197–1201. doi: 10.1093/rpd/nae051.
3. Bharathan RK. Measurement of the sequential  $3\alpha$  process in the photodissociation of  $^{12}\text{C}$ . *Phys Rev C*. 2025;111(1):014608. doi: 10.1103/PhysRevC.111.014608. Received July 31, 2024; revised October 22, 2024; accepted December 11, 2024; published January 21, 2025.
4. Vinin NV, Dharmarajan A, Jones J, Yahiya EKN, Muttath G, Sneha N. Clinical outcomes and dosimetric evaluation of interstitial brachytherapy in gynecological malignancies. *Gulf J Oncol*. 2024;1(45):69-74. PMID: 38774935.
5. Vinin NV, Hareni Murugavel. Rare case report of primary small cell carcinoma of the bladder. *Asian Pac J Cancer Care*. 2024;9(3). Aug 20, 2024.
6. Vinin NV, Hareni Murugavel, Yahiya N. Small cell carcinoma of the anal canal: a case report and review of management challenges. *Asian Pac J Cancer Care*. 2024;9(2). Apr 23, 2024.
7. Joneetha Jones, Vinin NV, Sebastian S, Muttath G, Narendran AP, Yahiya N, Anil B. Outcome of patients with early glottic laryngeal carcinoma treated with radical radiotherapy. *Asian Pac J Cancer Care*. 2024;9(3):475–80. doi: 10.31557/APJCC.2024.9.3.475-480.
8. Jones J, Suresh APS, Vinin NV, Muttath G, Yahiya N, Anil B, Rejeesh J. Clinicopathological characteristics and treatment outcomes in female patients with carcinoma of the tongue. *Indian J Basic Clin Pharmacol*. 2025;16(1):30–36. doi: 10.22376/Ijpbs.2025.16.1.b30-36.

### CONFERENCES AND WORKSHOPS ATTENDED:

- a) **Dr. Geetha.M**-8<sup>th</sup> AROI-ESTRO teaching course in gynecological cancer at KGMU, Lucknow Conducted on 06.02.25 TO 09.02.25.
- b) Dr Geetha- MVR cancer center 2024 on 30<sup>th</sup> to 31<sup>st</sup> august 2024 at Kozhikode, As faculty.
- c) Dr Geetha M- Online conference on Onco- Habitone-24 at MCC on 25<sup>th</sup> to 26<sup>th</sup> October 2024 as Faculty.
- d) **Silpa Ajaykumar**- Ranjima A, Suja C.A, Resmi K, Bharathan, Lisha Jose, Amna V.P,Sreena.M, Keerthy E.S (2024), “Evaluation of CT simulator parameters affecting image quality and planning in Radiotherapy ”Poster Presentation, 45 th Annual Conference of
- e) Association of Medical Physics of India (AMPI), Organized by Association of Medical Physicist of India and Basavatharakam Indo- American cancer Hospital and Research Institute, Hyderabad.
- f) **Resmi K Bharathan** –Surface dose variation in 6 and 10 MV FF and FFF beam in different clinical setup. Suja C.A 1, Lisha Jose 1,Silpa Ajaykumar 1, Jasmiya sherin2, Rasha sherin 2,Shahala jasmine 2, farhana thesni 2, Dr Musthafa 2. Organized by Ampicon 2024, hydrabad.
- g) **Dr Vinin N V**: Clinical Outcome of patients with nasopharyngeal carcinoma treated with definitive radiotherapy.Aroicon 2024, 28<sup>th</sup> November 2024 to 1<sup>st</sup> December 2024 at MangalorePoster presentation done
- h) **Suja C A**:Attended AMPICON 2024 at Hyderabad and presented e-poster titled “Determination of inflection point and comparison with profile normalization using treatment planning system.”

- i) **Lisha Jose:** Hands-on workshop on Total Marrow and Lymphoid Irradiation ,CMC,Vellore.
- j) **Dr.Akhil P Suresh:** AROI-ESTRO Head & Neck Teaching Course 6th - 8th June 2024 at MIOT International, Chennai, India.
- k) **Dr.Akhil P Suresh:** 44th Annual Conference OfThe Association of Radiation Oncologists of India (AROICON 2024) November 28th to December 1st 2024 in Mangalore.
- l) **Dr.Akhil P Suresh:** Qualitative Research workshop on 23<sup>rd</sup> November 2024 at MCC-PGIOSR
- m) **Dr.Akhil P Suresh:** Workshop on "Advanced Methods in Systematic Reviews and Meta-Analysis" on 15th & 16th February 2025 at MCC-PGIOSR
- n) **Dr.Akhil P Suresh:** 2nd Hands-on Workshop on Total Marrow Lymphoid Irradiation on 21<sup>st</sup>-22<sup>nd</sup> March at CMC Vellore
- o) **Dr Greeshma K E:** AROICON 2024 Organised by AROI on November 29th.. December 1st 2024 at Mangaluru. Poster title: Analysis of radiation dose received by heart in patients with left sided breast cancer receiving adjuvant radiotherapy Awarded first prize in poster presentation
- p) **Dr Greeshma K E:** Second TMLI workshop Organised by Department of Radiation Oncology on 21st & 22nd March 2025 At Christian Medical College, Vellore
- q) **Dr Arun P Narendran:** AROICON 2024, on 28<sup>th</sup> November 2024 to 1<sup>st</sup> December 2024 at Mangalore. Poster presentation done clinical outcome of carcinoma breast with Sub-centimetric internal mammary node
- r) **Dr Arun P Narendran:** ICGCW 2025 7th INDIAN CANCER GENETICS CONFERENCE & WORKSHOP Tata Memorial Hospital & ACTREC, Mumbai On Feb20<sup>th</sup> to Feb 23<sup>rd</sup> 2025 Poster presentation done Radiation therapy in DNA repair related Tumor Suppressor Gene germline mutation carrier patients
- s) **Dr Arun P Narendran:** ICGCW 2025 7th INDIAN CANCER GENETICS CONFERENCE & WORKSHOP Tata Memorial Hospital & ACTREC, Mumbai 2 days workshop on Genetic Counseling from 20<sup>th</sup> Feb to 21<sup>st</sup> Feb 2025
- t) **Dr Megha Prem:** Cervical Cancer - Cadaveric Workshop 27 & 28 July 2024 VENUE Ramaiah Advanced Learning Centre
- u) **Dr Nabeel Yahiya :ISO MVR Cancon 2024, presented a E poster: Outcome in small cell lung cancer patients treated with chemoradiation**
- v) **Dr Nabeel Yahiya: AROICON 2024:presented a poster:Survival analysis of carcinoma esophagus patients treated with palliative radiotherapy**

## STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Dr. Geetha. M	Professor
2	Dr. Vinin. N.V	Additional Professor
3	Dr. Joneetha Jones	Associate Professor
4	Dr. Greeshma. K.E	Associate Professor
5	Dr. Arun. P. Narendran	Assistant Professor
6	Dr. Nabeel Yahiya	Assistant Professor
7	Dr. Akhil. P. Suresh	Assistant Professor

8	Dr. Megha Prem Parambath	Assistant Professor
9	Dr Bindiya Vijayan	Assistant Professor(adhoc)
10	Dr.Silpa Ajaykumar	Lecturer
11	Suja C A	Lecturer
12	Resmi K Bharathan	Lecturer
13	Lisha Jose	Lecturer

<b>NON-ACADEMIC STAFF</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Arun Kumar E S	Dosimetris
2	Preethy U P	Dosimetris
3	Sriji Soman	X-Ray Technician
4	Nijeesh P T	Radiographer
5	Dhanya V	Radiographer
6	Beena P K	Radiographer
7	Harshal C H	X-Ray Technician
8	Faisal Anchukandan	Technician
9	Gayathry S S	Technician
10	Rejitha Mohan	Technician
11	Sunoj K Anand	Technician
12	Sandeep Kumar P	Attender
13	Sujith T	Attender

## DEPARTMENT OF RADIOLOGY/RADIO-DIAGNOSIS

<b>IN CHARGE</b>	DR SURYAKALA R ASSISTANT PROFESSOR
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### INTRODUCTION

Radiology plays a crucial role in cancer management, offering various tools and techniques for detection, staging, and treatment. Imaging is vital for cancer detection, providing detailed insights into the disease's location and extent, as well as structural or cancer-related changes. Advanced molecular imaging techniques, combining traditional imaging and nuclear medicine, offer more detailed information about abnormalities, including their specific metabolism. As technology advances, imaging modalities are expected to become increasingly accurate and reliable.

### DIVISION OF INTERVENTIONAL RADIOLOGY (IR)

In January 2020, the department acquired and implemented a high-end Digital Subtraction Angiography machine (Siemens Artis Zee Pure). A dedicated interventional suite and 5-bed recovery area are available in Interventional Radiology (IR). The Solero Microwave Tissue Ablation System is used for tumor ablation in the liver, lung, and kidney. IR currently performs both vascular and non-vascular procedures.

### FACILITIES AVAILABLE

- 128 slice GE Revolution Evo with facility for CT fluoroscopy
- Clinical MR scanner:
  1. GE- Signa HDxT1.5T (End of Life)
  2. Siemens VIDA 3T (new)
- USG scanner– Toshiba Aplio(USG machine), Samsung RS80 EVO USG machine, 2 portable machines(Acusonfreestyle wireless USG by Siemens, and Acuson P500 by Siemens), Automated breast ultrasound (iABUS by Episonica).
- Maxio Robot for robotic interventions
- 3D breast tomosynthesis – Upgraded for contrast mammogram & synthesized tomography.
- Vacuum Assisted Biopsy Machine( VAB)
- ConventionalX-ray and Digital Radiography(DR).
- High-end mobile DR.-SamsungGM85, Carestream
- GE centricity Enterprise PACS – Upgraded.
- DSA suite (Siemens ArtisZee Pure)
- Starburst Radiofrequency Ablation system by Angiodynamics.
- Solero Microwave ablation system.
- Ziehm C-Arm machine (End of Life).
- Hologic Horizon – Dexascan

## ACTIVITIES

### A.CLINICAL ACTIVITIES

Total studies: 45,983

SL NO	MODALITY	INVESTIGATION/PROCEDURE	NUMBER
1	MRI	No of Patients Imaged	1833
2		Full Study	2342
3		Screening	464
4		MR RT Planning	103
5	CT	No of Patients Imaged	5876
6		Full Study	10538
7		Biopsy	223
8		Robotic Biopsy	5
9	Pigtail	USG guided	4
10		CT guided	35
11	Portable X-ray		1336
12	Digital Radiography	No of Patients	7141
13		Studies	7989
14		Barium Studies	14
15	C-arm Procedure		6
16	Mammography	Studies	3892
17		Stereotactic biopsy	4
18	Ultrasound	Studies	3195
19		Biopsy	322
20		FNAC	424
21		Aspiration	108
22		Wire localization	62
23		Coil marking	52
24	Interventional Radiology	Trans arterial Chemoembolization	5
25		Radiofrequency ablation	-
26		Microwave ablation	10
27		PTBD	15
28		Nephrostomy	1
29		IAC	-
30		NJ/NG Tube insertion	1
31		Fluoroscopic balloon dilatation of RIES	17
32		Coiling / embolization	-

### B. ACADEMIC ACTIVITIES

#### **COURSES OFFERED IN THE DEPARTMENT:**

- BSc. Medical Radiological Technology
- Diploma in Radio diagnosis under NBEMS– Department was allotted 2 seats under DMRD by NBEMS

## STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Dr Suryakala R	Assistant Professor
2	Dr Asish Pavanan	Assistant Professor
3	Dr Preethi K P	Assistant Professor
NON-ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Sheena T P	Radiographer
2	Sindhu K U	Technician/ Radiographer
3	Vini Raveendran	X-Ray Technician
4	Nimmya Parameswaran	Radiographer
5	Muhammed Naseem	Radiographer
6	Srinsi N K	Radiographer
7	Praveen Kumar	Radiographer
8	Nidhu C D	Radiographer
9	Anu AnandhanAchari	Radiographer
10	Shajeena	Radiographer
11	Noufal P	Radiographer
12	Shikha M K	Radiographer
13	Sabina C V	Radiographer

## DEPARTMENT OF RESPIRATORY MEDICINE AND CRITICAL CARE

<b>HEAD IN CHARGE</b>	DR. DHYANA. V, M.B.BS, M.D PULMONARY MEDICINE, DNB, ASSISTANT PROFESSOR
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### INTRODUCTION:

This department manages the intensive care units and pulmonary problems the patients face during their treatment. It is also involved in the diagnosis and management of thoracic malignancies. Outpatient facilities include assessment of surgical fitness, fitness for chemotherapy, fitness for Bone marrow transplantation and post-transplant work up which is done using spirometry. Other outpatient facilities include assessment and treatment for pulmonary infections, acute exacerbations of underlying lung diseases. Inpatient facilities include consultations for various pulmonary symptoms, critically ill patients, ventilator managements etc. Pleural procedures like tapping, ICD insertion, Indwelling pleural catheter insertion.

Diffusion Capacity of Lungs for Carbon monoxide (DLCO) was started in 2019 and is used to identify early chemotherapy or transplant related complications, and as a part of surgical fitness for lung resection surgeries.

Diagnostic Bronchoscopy procedures are carried out which includes taking a Broncho-alveolar lavage for undiagnosed lung infections and Bronchoscopic lung biopsy for endobronchial lung lesions. Convex probe Endoscopic ultrasound bronchoscopy (EBUS) was started in 2022 for taking guided biopsies from extra-luminal hilar lung masses or mediastinal lymph nodes.

The Interventional Pulmonology services are being expanded with addition of flexi rigid thoracoscopy, Radial Probe guided transbronchial biopsies. Facilities like Cryotherapy, Argon Plasma Coagulation, Electrocautery etc has been made available. The Procurement of Rigid bronchoscopy and thoracoscopy instruments is being processed. Dedicated interventional pulmonology department which can handle complex airway surgeries, foreign body removal etc is in the making.

### DIVISIONS UNDER THE DEPARTMENT

1. Pulmonology
2. Critical care

Currently both the divisions are headed by a single faculty.

### AVAILABL FACILITIES

SL NO	NAME OF THE EQUIPMENT
1.	Pulmonary function tests including spirometry and Diffusion Capacity of Lungs for Carbon monoxide (DLCO)
2.	Bronchoscopy – diagnostic procedures like Bronchoalveolar lavage (BAL) and Bronchoscopic Lung biopsy
3.	Convex Probe Endoscopic ultrasound bronchoscopy (EBUS)
4.	Radial Probe Endoscopic Ultrasound bronchoscopy
5.	Electrocautery and workstation
6.	Argon plasma coagulation
7.	Cryoprobe with cryostation
8.	Flexi-rigid medical thoracoscopy
9.	Indwelling pleural catheter insertion

## ACTIVITIES:

### A.CLINICAL ACTIVITIES

SI No	Facilities	Number
1	Out-patients	3518
<b>Pulmonary Function test:</b>		
1	Spirometry	1513
2	Diffusion Capacity of Lungs for Carbon monoxide (DLCO)	83
<b>Procedures</b>		
1	Pleural tapping	74
2	Bronchoscopy	104
3	CP EBUS	21
4	RP EBUS	3
5	ICD insertion	4
6	Portable bedside ultrasound	45
7	Thoracoscopy	2
8	Intubation	1
9	Central Line insertion	1

## STAFF

<b>ACADEMIC STAFF</b>		
SL NO	NAME OF STAFF	DESIGNATION
1.	Dr. Arya Gopi ,MD , DM	Assistant Professor
2.	Dr. Dhyana.V ,MD ,DNB	Assistant Professor
<b>NON-ACADEMIC STAFF</b>		
SL NO	NAME OF STAFF	DESIGNATION
1	Mr. Shibu S	Nursing assistant

## DEPARTMENT OF SURGICAL ONCOLOGY

**HEAD OF DEPARTMENT**

**DR NIZAMUDHEEN M P. MS, MCh.  
ADDITIONAL PROFESSOR.**



### INTRODUCTION:

#### **Major milestones**

The department of surgical oncology is one of the oldest departments established in MCC. It was formed in 2001 under Dr Iqbal Ahmed when the institute was formed, who was the director of the institute then. The department started to grow and the patient services expanded mainly after 2009. Since then, there is a steady increase in the number of patients treated in the hospital and surgeries performed every year and new services and procedures were added. The department was functioning as a single unit till 2009. Today there are four divisions and three units under it.

Initially the department was functioning by using two operation rooms and five ICU beds. It was gradually expanded to four state of the art operating rooms and 14 ICU beds recently. The department regularly performs challenging procedures like free flap reconstructions, heated intra-peritoneal chemotherapy (HIPEC), minimally invasive surgeries using 2D and 3D laparoscopy and robotic surgery.

Academic activities were initiated way back in 2010. Institutional fellowships in head and oncology and gynaecologic oncology were the first to be started. This was followed by fellowships in surgical oncology, nutritional oncology and oral oncology. In 2017, DrNB in surgical oncology was started. FNB head and neck oncology was started in the year 2023. DrNB Gynecologic oncology was permitted recently and the course is expected to be started in this academic year. The department is hopeful of starting MCh surgical oncology in this academic year.

Minimally invasive surgeries are regularly being performed from 2017. HIPEC procedures are being done from 2019. Pediatric cancer surgery was started in 2019. Ocular oncology service had been started from 2022. Today the department performs more than 2400 major cases around 600 minor cases every year and takes 8 surgical students for training annually in various areas of surgical oncology.

### MAJOR FACILITIES AVAILABLE

SI No	Name of the equipment	Description
1	Surgical robot	Slave master system for performing minimally invasive surgery. Da Vinci Xi system from Intuitive surgical.
2	Nasal endoscopy	Used to visualize the interior of the nasal cavity and nasopharynx for diagnosis and assessment of tumors occupying those areas.
3	Pediatric laparoscopic instruments	For minimally invasive surgery in children.
4	Mediastinoscope	For obtaining lymph node samples from mediastinum and occasionally for lymph node clearance of the mediastinum.

5	Advanced microscope	Karl Zeiss, Tivato 700. For performing microvascular free flap reconstruction and certain procedures in neurosurgery and head and neck surgery.
6	Skull base surgery instruments	Stainless steel instruments for performing advanced procedures for resection of skull base tumors.
7	ICG fluorescence system	Used in endometrial cancer for minimally invasive lymph node sampling to reduce morbidity, ensure vascularity of the colon in surgeries of colorectal cancer.
8	Cavitronic Ultrasonic Surgical Aspirator (CUSA)	For bloodless surgeries on liver and brain.
9	Laser surgery system	For laryngeal cancers
10	Surgical navigation system.	For precise biopsy or resection of brain and skull base tumors.
11	Trans Anal Endoscopic Operation platform	For minimally invasive transanal surgeries for early rectal cancer.
12	Vessel sealer devices - Ligasure, Enseal and thunderbeat.	For blood less field in the open as well as minimally invasive surgeries for cancer.
13	Medtronic advanced Drill system	For drilling and cutting of bones during head and neck and neurosurgery.
14	3D laparoscope	For precise minimally invasive surgery with low morbidity.
15	Endo-urology system	For endoscopic resection of bladder cancer and channel transurethral resection of prostate cancer.
16	Advanced cautery systems - Medtronic, Olympus and J&J.	For cutting and hemostasis during surgery.
17	Medtronic Nerve monitor	For monitoring nerves in order to protect them during surgeries of high-risk areas like thyroid and parotid cancer.
18	2D laparoscope.	For minimally invasive surgery in colorectum, stomach, endometrium, esophagus etc.
19	HIPEC machine	Heated intraperitoneal chemotherapy for peritoneal carcinomatosis.
20	Colpo-suite	For examination, biopsy and resection of small lesions from the uterine cervix.
21	Endoscopy system - OGD scope, Colonoscope, Side viewing scope, Bronchoscope.	For endoscopic examinations and biopsy from various hollow viscus of the human body.

22	Endobronchial UltraSound (EBUS) and Endo Ultrasound (EUS)	Advanced technology for taking samples from mediastinal nodes, intra-abdominal organs etc using endoscopy guided ultrasound detection.
23	Savory Gillard dilators Facilities for ERCP and esophageal stenting	For dilatation of esophagus affected by cancer and sometimes stricture after radiation therapy.
24	Advanced camera system for documentation of cases.	Department camera for video recording for surgeries.
25	CUSA	For liver and brain surgeries

## MAJOR ACTIVITIES

1. Initial evaluation and work up of all patients with solid tumors (except lung cancer and chest wall tumors)
2. Endoscopic evaluation and interventions.
3. Participates in multidisciplinary tumor boards.
4. Minor procedures, cystoscopies, biopsies.
5. Major surgical oncological procedures.
6. Theory discussions, clinical classes, journal clubs, grand rounds and other academic activities.
7. Clinical research including multicentric clinical trials

## DIVISIONS AND UNITS UNDER THE DEPARTMENT

<u>Divisions</u>	<u>Units</u>
Head and Neck Oncology	Breast Oncology
General Surgical Oncology	Nutrition and Dietetics
Gynecological Oncology	Endoscopy
Ocular Oncology	

## HEAD AND NECK (HN) ONCOLOGY DIVISION

DIVISION IN CHARGE	DR.SANDEEPAVIJAY,MS,DNB ASSISTANT PROFESSOR
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The division of Head and Neck Oncology(HNO) was established in 2009 by Dr Sajith Babu and Dr Suri Salih. The division takes care of work up and surgical management of cases involving oral cavity, laryngopharynx, maxilla, thyroid, salivary glands and skull base. The division also carries out complicated reconstructions including free flap reconstructions. HNO division is academically active and is involved in training of students under the fellowship programs. Recently robotic assisted endoscopic thyroidectomy has been initiated.

### ACTIVITIES:

#### A.CLINICAL ACTIVITIES

##### **H&N**

SI No	Facilities	Number
1	Out-patients	10902
2	Major cases operated	420
3	Minor cases operated	255

**Total number of major cases done: 420**

SI No	Site/cases	Number
1	Oral cavity	233
2	Paranasal Sinus	1
3	Thyroid	120
4	Larynx & Hypopharynx	13
5	Salivary gland	14
6	Cutaneous malignancy	3
7	Others	36
	<b>Total</b>	<b>420</b>

##### **Neuro**

SI No	Facilities	Number
1	Out-patients	408
2	Major cases operated	28
3	Minor cases	-

## **1.ACADEMIC ACTIVITIES:**

	<b>Name of the course</b>	<b>Duration (years)</b>	<b>Number of candidates</b>	<b>Admitted in current year</b>	<b>Total students</b>
1	Fellowship under National Board (FNB) (Head and Neck oncology)	2	4	2	4
2	Fellowship under FHNO (Oral Oncology)	2	1	0	1
<b>Total Number of Students</b>					5

## **2.OBSERVERSHIP**

<b>Sl No</b>	<b>Number</b>	<b>Course</b>	<b>Institution</b>
1	8	Oral And Maxillofacial Surgery	SGT Hospital
2	3	Oral And Maxillofacial Surgery	Kannur Dental College
3	5	Oral And Maxillofacial Surgery	KMCT Dental College
4	1	ENT	Government Medical College, Kannur
5	3	Oral And Maxillofacial Surgery	MES Dental college
6	1	ENT	MES Medical college
7	1	FHNO Fellow Oral Oncology	MIMS, Kozhikode.
8	2	Oral And Maxillofacial Surgery	Al-Azhar Dental college, Thodupuzha
<b>Total number of observers: 24</b>			

## **B.RESEARCH ACTIVITIES:**

1. The department is part of several multi institutional trials as well as single institutional studies.
2. The research studies concentrate on improving treatment outcomes and reducing morbidity.

## **PROJECT DETAILS:**

### **MultiCentric Clinical Trials**

#### ***1. SPT Trial (PI: Dr Satheesan B )***

- Multicentric Randomized Controlled Trial to test the efficacy of Biocurcumin & Metformin in preventing Second Primary in Treated Oral Cancer Patients.

#### ***2. AREST Trial (PI: Dr Geetha M)***

- Multicentric Randomized Controlled Trial to study the outcomes of Adjuvant Radiation in Select Oral Cancer Patients (DOI $\geq$ 5mm)

#### ***3. NACT Mandible Trial (PI: Dr Anoop Attakkil)***

- Multicentric Randomized Controlled Trial (Phase 3) to study the mandible preservation rates and oncological outcomes of Neoadjuvant Chemotherapy in Oral Cancer Patients.

#### ***4. SCCOuP Trial (PI: Dr Sandeep Vijay)***

- Multicentric Randomized Controlled Trial to study the oncological outcomes of Surgery followed by Adjuvant RT Versus Chemoradiotherapy in Patients with Squamous Cell Carcinoma of the Head & Neck with Unknown Primary.

#### ***5. AIDOSCAN Trial (PI: Dr Raveena R Nair)***

- AI-Driven Large-scale Screening for Oral and Oropharyngeal Cancer (Aidoscan)- a multicentre project to deliver efficient and cost effective AI-driven population screening solution for Oral

and Oropharyngeal cancer via painless brush samples, smart imaging, and Explainable AI (XAI)-based diagnostics.

#### **OTHER ONGOING PROJECT DETAILS:**

1. Comparative analysis between various machine learning algorithms in predicting the survival outcomes of early oral cancer patients . ( PI: Dr. Anoop A)
2. Level of agreement between intra operative frozen section and final histopathology for bony margins in oral cancer :a prospective study. (PI:Dr Maroti B Wadewale)

#### **PROJECTS COMPLETED IN THE CURRENT YEAR**

##### **1. Impact of perineural invasion in outcome of salivary gland tumors, (PI-Dr Sandeep Vijay)**

The presence of PNI has a negative impact on OS and DFS in major salivary gland cancers, especially multifocal PNI. High T stage and High grade is associated with PNI. The presence of PNI, especially multifocal PNI should be considered as an indication for adjuvant RT irrespective of the presence of other adverse features.

##### **2. Thyroid gland involvement in laryngeal and hypopharyngeal cancers (PI- Dr Raveena N)**

Thyroid gland involvement was found to be associated more with higher T and N stage and extralaryngeal extension. Imaging helps to accurately predict thyroid gland involvement in laryngeal and hypopharyngeal cancers, so as to avoid unnecessary resection and thereby associated morbidities .

##### **3. Psycho-Social Well-being of Differentiated Thyroid Cancer (PI- Dr Sandeep Vijay)**

Significant number of DTC Survivors are experiencing many psychological issues which deteriorates their quality of life. Many remain undiagnosed. Long-term survivorship care with psycho-social support is recommended for improving their quality of life.

##### **4. Comparison of oncological outcomes between patients undergoing re excision post unplanned excision and planned excision for oral tongue cancers- a retrospective study (PI- Dr Anoop A )**

Re wide excision along with neck dissection is mandatory after unplanned excision of early tongue cancers. As overall survival (OS) is better for re wide excision group with no difference in disease free survival (DFS) among both groups.

##### **5. Compliance to strict follow up protocol among surgically treated oral cancer patients (PI- Dr. Nizamudeen MP)**

This study showed a decreasing trend in the compliance to the follow up visits .A better salvageability rate in the compliant group when they developed recurrence ,but with no significant difference in the overall survival between patient initiated visits and routine follow up visits even with subgroup analysis based on time recurrence before and after 2 years .Hence routine follow up after 2 years should be based on the risk stratification.

##### **6. Survival outcomes and prognostic factors in the patients receiving adjuvant chemoradiation for extranodal extension in oral cancer patients: a retrospective study. (PI-Dr Maroti B Wadewale)**

Level, number of ENE, and N/Ne ratio do not significantly affect OS or RFS. However, suprahyoid ENE and N/NE  $\leq 2$  showed longer survival. Survival outcomes between N2a and N3b groups did not show statistically significant difference, suggesting a need for analysis of prognostic stratification in AJCC 8Th edition and potential upstaging

#### **PUBLICATIONS:**

1. Nair, R., Attakkil, A., Vijay, S., Thomas, L., & Thavarool, S. B. (2024). Oncological Outcome and Treatment Options of Medullary Thyroid Cancers: Experience at a Tertiary Cancer Centre. Asian Pacific Journal of Cancer Care, 9(3), 437-441. <https://doi.org/10.31557/apjcc.2024.9.3.437-441>

2. Mishra A, Nair RR, Vijay S, Attakkil A, Mullath A, Babu AK. A Comparative Study of Speech and Swallowing Postoperative Outcomes in Oral Cancer: Impact of Lateral Mandibular Continuity Restoration. *J Oral Maxillofac Surg.* 2025 Mar;83(3):374-381. doi: 10.1016/j.joms.2024.10.020. Epub 2024 Nov 1. PMID: 39577833.
2. Maliyekkal FF, Vijay S, Attakkil A, Beegum F, Krishnan A, Mullath A. Exploring Malignant Odontogenic Tumors: Clinical Insights & Literature Analysis. *J Maxillofac Oral Surg.* 2025 Apr;24(2):508-515. doi: 10.1007/s12663-024-02325-y. Epub 2024 Sep 3. PMID: 40182437; PMCID: PMC11961805

### CONFERENCES PRESENTATIONS:

1. Dr. Anoop A Assistant Professor, attended the conference Endoscopic Endonasal skull Base Workshop Cadaver Dissection as a delegate at Manipal on 12th April, 2024
2. Dr. Shalini Kurian A Head & Neck Fellow attended the conference Endoscopic Endonasal skull Base surgery Workshop as a delegate at Manipal on 12th April, 2024
3. Dr. Rajesh Krishna Assistant Professor Neurosurgery attended the conference “White Matter Matters” – conference on White Matter Anatomy of brain & its applications in Neuroscience as a Delegate at Kochi on 6th & 7th April, 2024
4. Dr. Aswin M Assistant Professor, attended the conference KOMPAS '24 (Kerala Oral & Maxillofacial surgery PG Academic Summit) at KMCT Dental College, Calicut on 14th June 2024 as Faculty with presentation titled “Oral and Maxillofacial oncology.”
5. Dr. Anoop A Assistant Professor attended the conference Head & Neck Cancer : Concepts & Updates at Calicut on 14th July 2024 as Faculty.
6. Dr. Raveena R Nair Assistant Professor, attended the conference Head & Neck Cancer: Concepts & Updates as Delegate at Calicut on 14th July 2024
7. Dr. Sandeep Vijay Assistant Professor, attended the conference on Head & Neck Cancer: Concepts & Updates at Calicut on 14th July 2024 as Chairperson for the talk ”Imaging updates in Oral Malignancy.”.
8. Dr. A S Sano, DrNB Resident, attended the conference KASOCON 2024 at Thiruvananthapuram as a Delegate on 10th and 11th August 2024 .
9. Dr. R Sivakumar, DrNB Resident, attended the conference KASOCON 2024 at Thiruvananthapuram as a Delegate on 10th and 11th August 2024
10. Dr. Rajesh Krishna P, Assistant Professor Neurosurgery attended the conference “1st Intraoperative Neuro-monitoring Course in Neuro Oncology” at Mumbai, on 30th & 31st August 2024 .
11. Dr. Aishwarya N S, DrNB Resident, attended the conference COLORECTAC CANCER UPDATE 2024 at Thiruvananthapuram on 10,11 August 2024 as a Delegate with poster presentation titled “Clinical outcomes of inter-sphincteric resection for low rectal cancer”.
12. Dr. Sandeep Vijay, Assistant Professor attended the conference Head & Neck Complicon 2024, at Bangalore. on 23rd & 24th August, 2024, as Delegate
13. Dr. Anoop.A, Assistant Professor attended the conference Head & Neck Complicon 2024, at Bangalore, on 23rd & 24th August, 2024 as Delegate
14. Dr. Shakshi Ganeriwal, Head & Neck Fellow attended the conference Head & Neck Complicon 2024, at Bangalore. on 23rd & 24th August, 2024 as Delegate
15. Dr. Maroti Wadewale Head & Neck Fellow attended the conference Head & Neck Complicon 2024, at Bangalore. on 23rd & 24th August,
16. Dr. Aswin.M, Assistant Professor attended the conference Head & Neck Complicon 2024, at Bangalore. on 23rd & 24th August, 2024 as Delegate
17. Dr. Prem Anand Head & Neck FNB, attended the conference Head & Neck Complicon 2024, at Bangalore. on 23rd & 24th August, 2024
18. Dr Shalini Kurian, Head & Neck Fellow, attended the National conference .FHNO-2024, at Mumbai from 17th to 20th October 2024 as Delegate with poster presentation titled “Investigating the Impact of Imaging in Detecting Thyroid Gland Invasion for Laryngectomy Patients: A Retrospective Analysis”.

19. Dr Shakshi Ganeriwal, Head & Neck Fellow, attended the National conference .FHNO-2024,at Mumbai from 17th to 20th October 2024 as Delegate with poster presentation titled “Linguoalveolar sulcus depth and tongue volume predicting speech outcomes in early oral malignancies”
20. Dr Prem Aanand Head & Neck FNB, attended the National conference .FHNO-2024,at Mumbai from 17th to 20th October 2024 as Delegate with poster presentation titled “impact of re wide excision after unplanned excision biopsy in early oral tongue cancer”.
21. Dr Indu S, Head & Neck FNB, attended the National conference .FHNO-2024,at Mumbai from 17th to 20th October 2024 as Delegate with poster presentation titled “Psycho-Social Well-being of Differentiated Thyroid Cancer Survivors: A Cross-sectional Study”.
22. Dr Maroti Wadewale, Head & Neck Fellow, attended the conference .FHNO-2024,at Mumbai on 17th to 20th October 2024 as Delegate. Presented podium paper presentation: “Does risk stratification of Extranodal Extension into N2a and N3b hold relevance?”
23. Dr. Aishwarya N S DrNB Resident attended the conference on NATCON at Bangalore from 26th to 29th September 2024 as delegate with presentation titled “Clinical experience with tensor fascia lata free auto graft for reconstruction in oncological surgeries at a Tertiary cancer centre in South India..”
24. Dr.Aswin M Assistant Professor,attended the AOMSI State Conference at Kottayam on 18th to 20th October, 2024 as Faculty – as Panelist on the topic “Surgical Oncology – Evolving paradigms and excelling outcomes”.
25. Dr.Aswin M, Assistant Professor, attended the conference 48th National Annual AOMSI at Kolkata from 12th to 14th December 2024 as Faculty – Chairperson & Moderator for the talk Advanced Buccal Mucosa cancer.
26. Dr.Indu VP Head & Neck FNB, attended the conference COMPLICON - Shri Sankara Cancer Hospital & Research Centre, Bangalore 24th & 25th January 2025. as Delegate
27. Dr.ShaliniKurian Head & Neck,Fellow attended the conference COMPLICON- Shri Sankara Cancer Hospital & Research Centre,Bangalore as Delegate
28. Dr. Divya S Head & Neck FNB, attended the conference COMPLICON Part 2 Thyroid, Parathyroid and Salivary gland- Shri Sankara Cancer Hospital & Research Centre , Bangalore as Delegate.

## **STAFF DETAIL**

<b>ACADEMIC</b>			
<b>SI No</b>	<b>Name of STAFF</b>	<b>DESIGNATION</b>	<b>Division/unit</b>
1	Dr.Sandeep Vijay, MS, DNB, FHNSO(MCC)	Assistant Professor	Head and neck Oncology
2	Dr.Anoop.A, MS, DNB, FHNSO(TMC)	Assistant Professor	Head and neck Oncology
3	Dr.RaveenaR.Nair, MS, FHNSO(MCC)	Assistant Professor	Head and neck Oncology
4	Dr Aswin Mullath, MS, Fellowship in oral oncology(MCC)	Assistant Professor (Ad hoc)	Head and neck Oncology

## GENERAL SURGICAL ONCOLOGY DIVISION

<b>DIVISION IN CHARGE</b>	<b>DR NIZAMUDHEEN M P, MS, MCH. PROFESSOR</b>
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The division was established way back in 2001. The division takes care of evaluation and management of cancers involving gastrointestinal, thoracic, genitourinary, breast and musculoskeletal organs and pediatric cases. Regular surgeries include major resections of cancer involving colorectum, stomach, esophagus, pancreas, retroperitoneum, urological organs, genital organs in men, lung, mediastinum, chest wall, bone and soft tissues and pediatric cancers. Vascular access procedures are done regularly in adults as well as pediatric patients under this division. The division has newly started using ICG fluorescence for colorectal surgeries.

### ❖ **Unit of endoscopy-**

Staff – Shri.Rasiq P E

The unit of endoscopy provides comprehensive diagnostic and interventional endoscopic services to the cancer patients in MCC. Current facilities include OGD scope, colonoscope, side viewing scope, bronchoscope, EBUS/EUS, Savory Gillard dilators. ERCP and esophageal stenting are offered.

### ❖ **Unit of nutrition and dietetics-**

Staff – Smt.Reena Rajesh

This unit is concerned with prehabilitation and rehabilitation of cancer patients during surgery, radiation and chemotherapy. The unit offers fellowship in nutrition oncology.

## NEW EQUIPMENT AND INTIATIVES /FACILITIES:

1. Robotic surgery system, Indocyanine green (ICG) up gradation of laparoscopy system
2. Minor OT Started 26th December 2024

## ACTIVITIES:

### A. CLINICAL ACTIVITIES

#### 1. (GE SOG)

SI No	Facilities	Number
1	Out-patients	14077
2	Major cases operated	851
3	Minor cases	417
4	Endoscopy	2468
5	HIPEC	5

#### 2. (Breast SOG)

SI No	Facilities	Number
1	Out-patients	10532
2	Major cases operated	570
3	Minor cases	55

### 3. (Nutrition&Dietetics)

SI No	Facilities	Number
1	Out-patients	12860
2	In- patients	4919

❖ **Total number of major cases done: 1340 (those done under anaesthesia)**

SI No	Site/cases	Number
1	Gastrointestinal system	542
2	Urology	103
3	EBUS/EUS	4/11
4	Thoracic	33
5	Musculoskeletal	57
6	Limb salvage Surgery	12
7	Breast	570
8	HIPEC	5
	<b>Total</b>	<b>1340</b>

❖ **Total number of endoscopies done:2468**

SI No	Procedure	Number
1	DLDP	1032
2	OGD	456
3	Bronchoscopy	110
4	Colonoscopy	430
5	FEES	195
6	Sigmoidoscopy	103
7	EBUS	20
8	EUS	26
9	EUS- Diagnostic	5
10	OGD-Dilatation	19
11	OGD-CRE Dilataion	1
12	OGD+ EVL	1
13	Esophageal Stenting	12
14	Esophageal Stenting +Stent Fix	1
15	ERCP	1
16	Polypectomy	17
17	PEG Replacement	5
18	DLDP+RT Insertion	6
19	Side Viewing Scopy	7
20	Colonic CRE Dilatation	6
21	ERCP Stenting	2
22	ERCP Stent Removal	2
23	OGD- Foreign Body Removal	1
24	Cystogastrostomy	1
25	OGD-RT Insertion	3
26	ERCP Metallic Stenting	2
27	ERCP Stenting	2

	+ Sphincterotomy	
28	Enteral Stenting	1
29	ERUS	1
<b>Total</b>		<b>2468</b>

### **1.Courses and training programs:**

	Name of the course	Duration (years)	Number of candidates	Admitted in current year	Total students
1.	DrNB Surgical oncology	3	2	0	4
2.	Gastrointestinal oncology fellowship	2	0	0	0
3.	Fellowship in nutrition oncology	1	1	1	1
<b>Total Number of Students</b>					<b>5</b>

### **2.Guest faculty/Visiting faculty**

- Dr Saravana Rajamanikkam – Senior consultant at Thangam Hospital, Namakkal visited MCC for robotic lobectomy training.
- Dr Sreedhara V Setty, Cauvery hospital, Bangalore,
- Dr Vijayaraj Patil, from Kidwai Memorial Hospital, Bangalore. Visited for training on VATS lobectomy and sleeve lobectomy.

## **PROJECT DETAILS:**

### **Multicentric Clinical Trials**

- NAGA study (Neoadjuvant v/s Adjuvant Gastric Adenocarcinoma) (PI: Dr. Nizamudheen M P) - Funding –ICMR

## **PROJECTS COMPLETED IN THE CURRENT YEAR**

### **1. Comparison of survival outcomes of upper rectal adenocarcinoma treated with and without radiation (PI-Dr Bonny Joseph)**

Tumor location and radiation timing did not impact the survival significantly in this retrospective study. Preoperative radiotherapy achieved excellent local control without any significant increase in morbidity. Certain low risk upper rectal cancers may be omitted preoperative radiation without compromising on the 3-year survival outcomes. Prospective studies are required for validation.

### **2. Neoadjuvant Chemotherapy in Muscle-Invasive Bladder Cancer: A Real-World Experience From a tertiary cancer center (PI-Dr Bonny Joseph)**

Age, deranged renal function, performance status and comorbid illness were the major factors limiting application of NACT. Addition of NACT to definitive treatment showed a trend towards improved survival. Eligible patients should continue to be offered NACT to maximize the survival outcomes

### **3. Impact of nodal status on survival of patients treated for carcinoma of the penis: a retrospective observational study (PI-Dr. Bonny Joseph)**

Pathological nodal status is an indicator of poor prognosis in carcinoma penis. Patients with extra nodal extension or pelvic nodal metastasis had significantly worse survival compared to those patients with node negative status or pn1 status. This finding signifies the prognostic importance of nodal staging in penile cancer and supports the aggressive multimodality treatment for node positive disease. However statistical power was not achieved probably due to limited sample size and the retrospective nature. Strategies like sentinel lymph node evaluation and careful patient selection for lymphadenectomy will improve the outcome by balancing oncological safety with morbidity. Further trials are needed to validate the results.

### **4. Outcomes and prognostic factors of patient with colorectal cancer who underwent metastatectomy (PI- Dr. Nizamudheen M P )**

In our study with median follow up period of 20.3 months ,the calculated the median overall survival was 20 months , Relapse free survival was 18 months Overall survival outcome had significant correlation with nodal stage of primary tumor,did not show correlation with other prognostic factors like site of primary ,preoperative CEA level, number and size of the metastatic disease .

**5. Patients with rectal tumors undergoing local excision: clinicopathological and oncological outcome (PI- Dr. Nizamudheen M P, CO-PI Dr. Alex xavier chakiath)**

For certain cases of rectal cancer, transanal excision is a surgical option that is comparatively safer, has a similar oncological outcome, and improved quality of life. The treating physician's clinical judgment, along with a careful analysis of the MRI imaging and TRUS scan, as well as a clinical correlation with the results of the per rectal examination, is what ultimately determines whether a lesion is amenable to transrectal examination.

**6. Incidence and factors affecting lars following curative rectal surgery ( PI- Dr.Nizamudheen M P )**

LARS is found in about one third of rectal cancer patients after colorectal anastomosis. Because of its great impact on the quality of life of these patients, it is necessary to early identify the syndrome trying to reduce its manifestations. The potential for long-term poor functional results after Radiation therapy should be discussed with patients preoperatively. The timing of the stoma closure, where safe and feasible, should be performed within 6 months to improve outcome.

**7. Oncological outcomes after Whipples resection in a tertiary cancer center(PI- Dr.Nizamudheen. M.P)**

The short-term oncological outcomes at our centre were comparable to those in published literature. The oncological outcomes were showing an improving trend with time.The magnitude of the surgical stress of this procedure and the functional reserve of this patient population can be a notable factor influencing the outcome.

**8. Ureteric resections in non-urological malignancies (PI-Dr.S V Abhiram )**

Ureteral resection and reconstruction, is feasible and safe along with multivisceral resections for non-urological malignancies. UU is the most common procedure of choice for upper and mid ureter injuries, while ureteroneocystostomy for lower zone or pelvic ureter. Most individuals requiring a ureteral resection and reconstruction for non-urothelial tumors had preserved renal function over long-term.

**9. Clinical experience with tensor fascia lata autograft for reconstruction in oncological surgeries at a tertiary cancer center in South India. (PI- Dr.Satheesan B)**

In our study we describe reconstruction with a fascia lata autograft after oncological resection as a safe and feasible procedure with acceptable complications and donor site morbidity rates which offers minimal postoperative dysfunction.

## **PUBLICATIONS:**

1. Poolakkil, P., Pareekutty, N. M., Balasubramanian, S., Nethrakare, A., & Anilkumar, B. (2024). Challenges in the management of foot and ankle sarcomas: A retrospective analysis in a tertiary cancer institute in South India. *Cancer Research, Statistics, and Treatment*, 7(3), 318–325. [https://doi.org/10.4103/crst.crst\\_6\\_24](https://doi.org/10.4103/crst.crst_6_24)
2. Poolakkil, P., Pareekutty, N., Balasubramanian, S. et al. Feasibility and Outcomes of Salvage Therapy for Recurrence in Colorectal Cancer Patients Followed Up with a Low-Intensity Regime. *Indian J Surg Oncol* (2025). <https://doi.org/10.1007/s13193-025-02227-6>

## **CONFERENCES HELD BY SOG**

- National Conferences Nutricinas & Dietetics- ONCON 2025 19th January 2025

## **CONFERENCES PRESENTATIONS:**

1. Reena C, Dietician attended the conference “New Perspectives in Oncology Nutrition” at Bangalore on 20<sup>th</sup>& 21<sup>st</sup> April, 2024 Managing Nutrition & cost for long term support – Balancing Blenderised & Supplements

2. Dr.Nizamudheen M P, Additional Professor attended the conference Manipal Surgical oncology workshop at Manipal on 11<sup>th</sup> May,2024
3. Mrs.Reena C, Dietician attended the conference ISOMVR CANCON 2024 at MVR Cancer Centre, Kozhikode on 2<sup>9th</sup> August 2024 “Nutritional Rehabilitation in Cancer Care.”
4. Dr.Nizamudheen M P, Additional Professor attended the conference ISO MVR CANCON at Calicut on 3<sup>0th</sup> August, 2024 for panel discussion
5. Dr.Nizamudheen M P, Additional Professor attended the conference Rectal Cancer Update RCC Trivandrum at Thiruvananthapuram on 10<sup>th</sup>& 11<sup>th</sup> August, 2024.
6. Dr.Bonny Joseph, Assistant Professor attended the conference COLORECTAL CANCER UPDATE 2024 at Thiruvananthapuram on 10<sup>th</sup> and 11<sup>th</sup> August 2024 video presentation “Robotic Anterior Resection with Partial Cystectomy.”
7. Dr.S V Abhiram, Resident attended the conference COLORECTAC CANCER UPDATE 2024 at Thiruvananthapuram on 10 August 2024
8. 2024 Dr.Nizamudheen M P, Additional Professor attended the conference IASO NATCON 2024 at Bangalore on 26<sup>th</sup> to 29<sup>th</sup> September,
9. Dr Alex Xavier Chakiath Resident attended the conference NATCON-2024, at Bangalore on 26th to 29 th September 2024 “Outcome of multiorgan resection as a part of cytoreductive surgery in advanced ovarian cancer”.
10. Mrs.Reena C, Dietician attended the conference AIG Hospital’s International Nutrition Conference at Hyderabad on 8<sup>th</sup>& 9<sup>th</sup> January 2025 “Personalised nutrition in cancer care.”.
11. Mrs.Reena C, Dietician attended the conference ICNC-2025 at Varanasi from 20<sup>th</sup> to 23<sup>rd</sup> February 2025 “Impact of early nutritional intervention in patients with cancer.”.
12. Dr Prasanth P, Assistant Professor attended the conference Techniques & Guidelines of Nutritional feeding in Oncology Patients MCC , Nutritional Conference, MCC 18th Jan 2025,

#### **TRAINING:**

- Robotic training wet lab at Bangalore on 27th May, Dr.Bonny A Joseph
- Lympho venous anastomosis at Mumbai 21st to 23 rd Jan 2025, Dr.ShamnaMohammed

#### **STAFF**

<b>ACADEMIC STAFF</b>			
<b>SI No</b>	<b>Name of STAFF</b>	<b>DESIGNATION</b>	<b>Division/unit</b>
1	Dr. Satheesan B, MS, DNB, MCh	Professor, Director	
2	Dr. Nizamudheen M P, MS, MCh	Additional Professor and Head of the Department	Generalsurgical oncology
3	Dr.Shamna Mohammed MS,Mch	Assistant Professor	General surgical oncology
4	Dr. Bonny A Joseph, MS, MCh	Assistant Professor	General surgical oncology
5	Dr.Prasanth.P, DNB, DrNB	Assistant Professor	General surgical oncology

<b>NON-ACADEMIC STAFF</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Reena C	Dietician
2	Rasiq P E	Endoscopy Technician
3	Hasnath C	Endoscopy technician (contract)

## GYNAECOLOGIC ONCOLOGY DIVISION

DIVISION IN CHARGE	DR ADARSH D, MS ASSOCIATE PROFESSOR
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The Gynaecologic oncology division manages gynecological cancers namely Carcinoma of the ovary, cervix, endometrium, vulva, vagina and primary peritoneal carcinoma. Current facilities include provisions for major resections of all gynae cancers. Screening tests including pap smear, liquid based cytology, colposcopy and genetic testing for ovarian cancers, genetic counseling of gynaecological cancers are performed in the department. HIPEC is regularly performed for advanced ovarian cancers and recurrent cancers. Laparoscopic surgeries are performed regularly for ca endometrium.

### ACTIVITIES:

#### A.CLINICAL ACTIVITIES

SI No	Facilities	Number
1	Out-patients	6222
2	Major cases operated	364
3	Minor cases	216
4	HIPEC	5

❖ **Total number of major cases done:364**

SI No	Site/cases	Number	Total No
<b>1</b>	Cancer Endometrium		121
	Open	35	
	Laparoscopy	29	
	Robotic	57	
<b>2</b>	Cancers of Ovary		150
	ICS	62	
	CRS(Primary)	45	
	CRS+HIPEC	5	
	Staging Laparotomy	19	
	Completion	9	
	Emergency Laparotomy	3	
D.Lap Biopsy	7		
<b>3</b>	Cancer Cervix		30
<b>4</b>	Cancer Vagina		1
<b>5</b>	Miscellaneous (Lap BSO+D&C Stoma Reversal)		62
	<b>Total</b>		<b>364</b>

### **1.Courses and training programs:**

	<b><u>Name of the course</u></b>	<b><u>Duration (years)</u></b>	<b><u>Number of candidates</u></b>	<b><u>Admitted in current year</u></b>	<b><u>Total students</u></b>
<b>1</b>	Gynecologic oncology fellowship	2	2	Awaiting	2
	Total				2

### **ONGOING PROJECT DETAILS:**

- a. Surgical outcome and survival following secondary cytoreductive surgery in Carcinoma ovary (PI: Dr Sreeja B)
- b. Clinicopathological features and oncological outcomes of borderline ovarian tumors (PI: Dr. S V Abhiram)

### **PROJECTS COMPLETED IN THE CURRENT YEAR**

#### **1. Outcome of multiorgan resection as a part of cytoreductive surgery in patients with ovarian cancer (PI :Dr Alex Xavier Chakiath)**

In conclusion complex surgical procedures can be carried out in patients with ovarian cancers with acceptable risk better survival.

#### **2. The impact of Tumor site on lymph node metastasis and survival outcome in endometrial carcinoma (PI: Dr Ashitha R G)**

Lower uterine segment tumors are seen more in young and premenopausal age group. These are usually high grade tumors , with increased LVSI, myometrial invasion and cervical invasion. As a result they present at an advanced stage and have poor prognosis compared to upper segment tumors.

### **PUBLICATIONS:**

1. Vimal A, Ashitha RG, Dharmarajan A, Rogarajan A, Ganapathirajan S. Clinical Investigation into Survival Outcomes Among Stage IV Epithelial Ovarian Cancer Patients Receiving Curative Treatment: Indian Setting. J Obstet Gynaecol India. 2025 Apr;75(Suppl 1):99-105. doi: 10.1007/s13224-024-02015-2. Epub 2024 Jul 13
2. Ramani Gangadharan Ashitha, Dharmarajan A, Vimal A, Ganapathy S. Whether complete lymphadenectomy is justified in high-grade carcinoma of endometrium. Oncol Radiother. 2024;18(8):1–5
3. Ashitha, R.G., Dharmarajan, A. and Badesara, S. (2024) ‘Utility of risk of malignancy index four (RMI- 4) in prediction of oncological outcomes in adnexal masses: A retrospective analysis’, International Journal of Pharma and Bio Sciences, 15(3), pp. 9–14. doi:10.22376/ijpbs.2024.15.3.b9-14.

### **CONFERENCES HELD BY GOGSOG**

**“UGOCON 2024” 23<sup>rd</sup> June 2024**

### **CONFERENCES PRESENTATIONS:**

1. Dr.Adarsh D, Associate Professor attended the conference Oncology nutrition at Bangalore on 20<sup>th</sup> & 21<sup>st</sup> April, 2024 as faculty with presentation titled “Gut Microbioms cancer immune therapy”.
2. Dr. Adarsh.D, Associate Professor attended the conference ISO-MVR CANCON 2024, at Calicut on 29<sup>th</sup> Aug to 1<sup>st</sup>sep 2024 “Clinical and oncological outcome of pelvic exenteration for gynaecological malignancy in an apex cancer centre” and as a panelist for the topic peritoneal malignancy
3. Dr.Ashitha.R G, Assistant Professor attended the conference ISO-MVR CANCON 2024, at Calicut on 29<sup>th</sup> Aug to 1<sup>st</sup>sep 2024 “Impact of nodal positivity on survival of patients with advanced ovarian cancer undergoing ICS”.
4. Dr.Adarsh D ,Associate Professor attended the conference AGOICON 2024 at Kochi on 7<sup>th</sup>& 8<sup>th</sup> December 2024 “Secondary cytoreduction in Recurrent carcinoma ovary-survival outcome and complications

5. Dr.Ashitha R G, Assistant Professor attended the conference AOGIN-India 2024 at JIPMER (Pondicherry) on 4<sup>th</sup>& 5<sup>th</sup> October 2024 “Survival outcome of carcinoma vagina patients treated at a tertiary cancer centre”.
6. Dr.Sreeja B Fellow attended the conference AGOICON 2024 at Kochi from 6<sup>th</sup> to 8<sup>th</sup> December 2024 “Demographic and Prognostic variables clear cell carcinoma.”
7. .” Dr.Nila S Pradeep, Fellow attended the conference AGOICON 2024 at Kochi from 6<sup>th</sup> to 8<sup>th</sup> December 2024 “A retrospective study to assess the impact of tumor site on lymph node metastasis and survival outcome in patients who underwent curative intent treatment for carcinoma endometrium
8. Dr.Rachana P ,Assistant Professor attended the conference AGOICON 2024 at Kochi on 6<sup>th</sup> to 8<sup>th</sup> December 2024 “Embryonal Rhabdomyosarcoma of cervix :A rare disease in reproductive age group.”
9. Dr.Ashitha R G A Assistant Professor, attended the conference GOICON 2024 at Kochi on 7<sup>th</sup>& 8<sup>th</sup> December “Survival outcome of patients with vulvar malignancy treated at a tertiary care cancer centre.”
10. Dr.Adarsh D ,Associate Professor attended the conference GESTICON National Conference at Kochi from 2<sup>3rd</sup>&2<sup>4th</sup> November 2024 “Malignancy in pregnancy”.

## STAFF

<b>ACADEMIC STAFF</b>			
<b>SI No</b>	<b>Name of STAFF</b>	<b>DESIGNATION</b>	<b>Division/unit</b>
1	Dr.Adarsh Dharmarajan, MS (Obstetrics and Gynecology)	Associate Professor	Gynecological Oncology
2	Dr.Ashitha.R.G, MS (Obstetrics and Gynecology)	Assistant Professor	Gynecological Oncology
3	Dr.Rachana.P	Assistant Professor	Gynecological Oncology(Adhoc)

## OCULAR ONCOLOGY DIVISION

DIVISION IN CHARGE	DR. HRIDYA H, DNB, FMR ASSISTANT PROFESSOR
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The Ocular Oncology Division, part of the Surgical Oncology Department, provides comprehensive eye care supported by a multidisciplinary oncology team. It offers state-of-the-art treatments for retinoblastoma. The services provided include regular examinations under anesthesia, intravitreal chemotherapy, cryotherapy, laser therapy, and transpupillary thermotherapy, along with systemic chemotherapy. Intra-arterial chemotherapy, an advanced targeted treatment for retinoblastoma, is offered at no cost. The division has also successfully treated conjunctival squamous cell carcinoma and ocular surface squamous neoplasia using topical and intralesional chemotherapy, reducing the need for surgery.

MCC(PGIOSR) is one of the few centers equipped with a plaque brachytherapy unit for treating intraocular or ocular surface tumors, allowing cancer treatment without eye removal and preserving vision and quality of life. For eyes that cannot be saved, enucleation with orbital implant placement is performed, followed by rehabilitation with custom-fit prostheses.

In addition to diagnosing and treating eye cancers, the division conducts routine ocular screenings for pediatric leukemia patients. It also diagnoses and treats ocular toxicities from systemic chemotherapy and radiation, and provides ophthalmic evaluations for patients with neurological tumors before and after surgery. MCC(PGIOSR) is one of the few centers that actively screens and manages ocular graft-versus-host disease (GVHD) cases.

### ACTIVITIES

#### A. CLINICAL ACTIVITIES

SL NO	FACILITIES	NUMBER
1	Out-patients	1542
2	Major procedures performed	68

#### B. MAJOR PROCEDURES

OCULAR ONCOLOGY PROCEDURES					
EYELID ORBIT	AND	OCULAR SURFACE		INTRAOCULAR	
Orbitotomy + incisional biopsy	2	Intralesional injection interferon x2b	3	Examination under anesthesia /without Anesthesia	34
LPS Recession	1			Intravitreal chemotherapy	3
Blepharoplasty	3			Transpupillary thermotherapy	7
Excision Biopsy	1			Cryotherapy	5

Lateral canthotomy + Chemosis drainage + Suture Tarsorrhaphy	1			Secondary Plaque brachytherapy	1
Intralesional 5 FU injection	1				
Eyelid tumor excision + Frozen+ Reconstruction	1			Primary Plaque brachytherapy	2
LPS re-adjustment	1				
Eyelid coloboma correction	1				
<b>Total</b>	<b>13</b>		<b>3</b>		<b>52</b>
<b>Total number of procedures: 68</b>					

### CONFERENCES PRESENTATIONS:

Biennial Conference of International Society of Ocular Oncology (ISOO)- ISOO GOA 2024 :“Combined Topical and Intra-lesional Interferon alpha-2b Therapy for Ocular Surface Squamous Neoplasia”

### AWARDS:

Travel Grant Award at the Biennial Conference of International Society of Ocular Oncology (ISOO)- ISOO GOA 2024

### TRAINING:

Workshop On Clinical Research Methods And Protocol Development- AAZPIRE 2024 from 25<sup>th</sup> to 28<sup>th</sup> April 2024 (Virtual; 9 am to 4pm)

### RESEARCH:

Ongoing project: ‘Prevalence of intraocular metastasis in metastatic non hematological malignancies’

### STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Dr. Hridya H.	Assistant Professor

## **CLINICAL RESEARCH & BIOSTATISTICS DIVISION**

**DIVISION IN CHARGE** -MRS.MAYA PADMANABHAN, MSc, MPhil (Statistics)

### **INTRODUCTION**

The Clinical Research & Biostatistics (CRB) Division was established in 2013. Its primary purpose is to manage clinical, epidemiological, and translational research at the institution, facilitate collaborative research efforts, and provide education in Biostatistics, Bioethics, and clinical research.

The center focuses on advanced clinical research across major oncological fields, emphasizing interdisciplinary approaches. To ensure research adheres to stringent standards, the Institute has an Institutional Review Board (IRB). The IRB comprises two entities: the Scientific Review Committee (SRC) and the Institutional Ethics Committee (IEC). These bodies are formed in accordance with ICMR and CDSCO guidelines for biomedical research and clinical trials. This structure ensures compliance with Good Clinical Practice (GCP) Guidelines and NDCT rules of India, 2019 throughout the study's conduct, analysis, and publication.

The CRB Division aims to create, share, and implement biostatistical and analytical methods for cancer research, covering both research design and analysis. It also supports clinical data management for trials in line with Indian GCP and NDCT rule 2019.

### **ACADEMIC ACTIVITIES**

The Division offers regular Research Methodology and Biostatistics classes for faculty, DM/DrNB/DNB trainees, fellows, and Senior Residents. Project staff receive Good Clinical Practice training. Additionally, the Division participates in academic sessions, including journal clubs, with the Cancer Registry and Community Oncology Departments.

### **PROJECT WORK**

The Division provides facilities for MSc Statistics/Biostatistics students to complete their postgraduate dissertations or projects. It offers guidance on project preparation, data collection, analysis, and result interpretation. To date, 9 students have successfully finished their PG projects within this Division.

### **RESEARCH PROJECTS**

1. Distribution of recurrence in early breast cancer: An application of Poisson Distribution-PI: Mrs.Maya Padmanabhan
2. Distribution of Survivors in Colorectal Cancer: An Application of Geometric Distribution-PI: Mrs.Maya Padmanabhan
3. Application of mixture cure rate model- a retrospective study on Colorectal cancer-PI: Mrs.Maya Padmanabhan
4. Comparing The Predictive Performance Of A Decision Tree With Logistic Regression For Lung Cancer Mortality: A Retrospective Study-PI: Mrs.Maya Padmanabhan
5. A Study On Logistic Distribution & its Applications-PI: Mr.Riyas M
6. Multi State Markov Chain Modelling of Multiple Myeloma:A Disease Progression Model-PI:Mr.Riyas M
7. Analysis Of Return In Platelet Donor Using Count Data Models-PI: Mr.Riays
8. Labelling and comparison of outliers in cancer data using univariate and multivariate method-PI: Mrs.Maya Padmanabhan

## PUBLICATION (2023-24)

1. Ashok Thomas, Kausik Gangopadhyay, Kulbhushan Balooni, Satheeshan Balasubramanian, and Maya Padmanabhan. Is Government Health Subsidy Targeted Enough in India? Evidence from a Tertiary Hospital. International Journal of Public Administration, March 2024

## STATISTICS

### RESEARCH PROPOSAL REVIEW

- Expedited Review Committee -86
- Institutional Ethics committee-33
- Intramural Research Committee-3

### NUMBER RESEARCH MEETING

- Scientific Review committee-17
- Institutional Ethics Committee-4
- External Review committee-1
- Scientific Advisory Committee-1

## EXTRA MURAL RESEARCH

Research is an integral part of any major academic institution for its contribution to mankind. To bolster research activities, MCC sought and secured funding from various government agencies. Currently, 13 EMR-funded projects are in progress at our location, with 6 projects successfully completed and three patents obtained from these endeavors. The ongoing projects are as follows:

NO	TITLE OF THE STUDY	FUNDING AGENCY	PI
1.	Design and implementation health care model in patients with stage 2 breast cancer	Indian Council for Medical Research, Govt of India	Dr.Satheesan B
2.	Assessment of key immune factors in the pathogenesis of HPV associated oral and oropharyngeal squamous cell carcinoma	Indian Council for Medical Research, Govt of India	Dr.Sangeetha K Nayanar
3.	Deciphering key genetic alternations in oral precancers and cancer as possible therapeutics/Prognostic markers	Indian Council for Medical Research, Govt of India	Dr.Deepak Roshan V G
4.	AI-driven Large-Scale screening for oral and oropharyngeal cancer	Department of Biotechnology, Govt of India	Dr.Satheesan B
5.	Neoadjuvant chemotherapy followed by Surgery versus Surgery followed by adjuvant chemotherapy for resectable Gastric adenocarcinoma - Phase 3-Multicentre Randomized Controlled Trial(NAGA-Trial	Department of Health Research	Dr.Nizamudheen M P
6.	Design and development of ultrasonic Transducer probes for medical imaging	R&D in Medical Electronics and Health Informatics Ministry of Electronics & Information Technology (MeitY), Govt of India	Dr.Nrithi S Prasad

7.	Mission Covid Suraksha-Enhancing capacity for conduct of Human clinical trials for COVID-19 Vaccine candidates	Biotechnology Industrial Research council(BIRAC), Govt of India	Dr.Chandra n K Nair
8.	Clinicopathologic and genetic profile of bilateral breast cancer patients	Kerala State council for Science, Technology and environment, Govt of Kerala	Dr.Sithara Arvind
9.	To establish a ready network of clinical trial units across the National Cancer Grid to promote multi-centric collaborative research in the field of drug and device development	Biotechnology Industrial Research council(BIRAC), Govt of India	Dr.Satheesan B
10.	LAMP based, point of care POC rapid and low cost diagnostic test for COVID-19	BIRAC, Govt of India	Dr.Saravanan M
11.	Hospital Based Cancer Registries in India	National Centre for Disease Informatics and Research(NCDIR), ICMR	Dr.SainaSunilkumar
12.	A study on patterns of care and survival of head and neck, breast and cervical cancers in India under the Hospital Based Cancer Registries of National Cancer Registry Programme	National Centre for Disease Informatics and Research(NCDIR), ICMR	Dr.SainaSunilkumar
13.	Haematology Cancer Consortium	HCC	Dr.Chandra n K Nair

## CLINICAL TRIAL UNIT

In 2023, MCC launched the Clinical Trial Unit with the aim of establishing a Center of Excellence for conducting research and regulatory clinical trials. These facilities comply with relevant standards and regulations, including the Drugs & Cosmetic Act, New Drugs, and Clinical Trial Rules, which govern clinical research practices.

The Clinical Trial Unit features dedicated space exclusively for trial activities. It comprises separate areas for workstations, counseling, sample collection, sample processing and storage, data documentation, IP storage, investigators, and archival purposes. The entire unit is centrally air-conditioned with round-the-clock UPS backup. Additionally, it is equipped with essential tools for clinical trials, such as internet-connected computers, desktops, laptops, tablets, printers, scanners, TV monitors, projectors, copiers, centrifuges, cooling centrifuges, deep freezers (-80°C and -20°C), multi-mode plate readers, wireless temperature loggers, camcorders, data loggers, refrigerators, color photocopiers, IP access control systems, ICU cots with mattresses, weighing machines, measuring tapes, thermometers, stethoscopes, and BP apparatus. The details of ongoing clinical trials are as follows:

SL NO	TRIAL	PI
1	Phase IIb/III study to determine efficacy of Curcumin and Metformin to reduce the incidence of second primary tumors of	Dr. Satheesan B

	aero-digestive tract in patients with history of head and neck squamous cell carcinoma	
2	A Multicenter, Randomised, Double blind, Parallel, Phase III Global Study to Assess the Efficacy and Safety of BP01 (Bevacizumab) when compared to Avastin®-EU in Combination with Carboplatin and Paclitaxel during Induction phase and Bevacizumab alone during the Maintenance phase in patients with newly diagnosed or recurrent Stage IIIB/IV Non Squamous (ns) Non-Small Cell Lung Cancer (NSCLC)	Dr. Praveen Kumar Shenoy
3	A Randomized, Open-Label Study of the Efficacy and Safety of Galinpepimut-S (GPS) Maintenance Monotherapy Compared to Investigator's Choice of Best Available Therapy in Subjects with Acute Myeloid Leukemia Who Have Achieved Complete Remission After Second-Line Salvage Therapy	Dr. Chandran K Nair
4	Adjuvant Radiotherapy in Early Stage Oral Cancers (AREST) – a prospective randomized control trial	Dr. Geetha M
5	A Phase 1, open label first in human study investigating the safety, tolerability Pharmacokinetics, and preliminary antitumor activity of HPKI inhibitor GRC 54276 alone and in combination with Anti-PD-1 monoclonal antibody Pembrolizumab or Anti PD-L1 Atezolizumab in subjects with advanced solid tumors and Hodgkin's Lymphoma	Dr. Praveen Kumar Shenoy
6	ALPelisibIndia Safety Study (ALPINIST): a phase IV, prospective, multicentre, open-label, non-comparative, interventional study to assess the safety of alpelisib plus fulvestrant, in men and postmenopausal women with HR-positive, HER2-negative, advanced breast cancer (aBC) with a PIK3CA mutation, whose disease has progressed on or after endocrine based treatment	Dr. Nandini Devi R
7	A Prospective, Multicenter, Open-Label, Phase IV, Interventional Study to Assess the Safety and Efficacy of Capmatinib in Indian Patients with Mesenchymal-Epithelial Transition (MET) Exon 14 Skipping Mutation Positive Advanced Non-small Cell Lung Cancer (NSCLC)	Dr. Praveen Kumar Shenoy
8	A Randomized, Multiple-dose, Multicenter, Comparative Parallel Study to Evaluate the Pharmacokinetic, Pharmacodynamic, Efficacy and Safety of Subcutaneous Injection of Denosumab (Hetero) and Reference Medicinal Product (Denosumab, Amgen Inc.) in patients with bone metastases from solid tumors	Dr. Praveen Kumar Shenoy
9	A Phase 3 Study of CCNU versus CCNU Plus Mebendazole in Glioma	Dr. Praveen Kumar Shenoy
10	Neoadjuvant chemotherapy followed by Surgery versus Surgery followed by adjuvant chemotherapy for resectable Gastric adenocarcinoma Phase 3 Multicentric Randomized Controlled trial	Dr. nizamu dheen M P
11	Randomized study of neoadjuvant systemic therapy in Oral Cavity cancer	Dr. Praveen Kumar Shenoy

12	A Randomized, Open-Label, C5 Inhibitor-Controlled Study To Evaluate The Efficacy And Safety OfPozelimabAndCemdisiran Combination Therapy In Patients With Paroxysmal Nocturnal Hemoglobinuria Who Are Complement Inhibitor Treatment-Naive Or Have Not Recently Received Complement Inhibitor Therapy	Dr. Chandran K Nair
13	The Multicenter, Double-Blind, Randomized, Parallel-group, Phase 3 Study to Compare the Efficacy and Safety of the Proposed Biosimilar PERT-IJS and EU-Perjeta® Along with Trastuzumab and Chemotherapy (Carboplatin and Docetaxel) as Neoadjuvant Treatment in Patients with Hormone Receptor Negative (HR-ve) Human Epidermal Growth Factor Receptor 2 (HER2)-positive Early Stage or Locally Advanced Breast study	Dr. Praveen Kumar Shenoy
14	A Phase 2a study of HT-6184 in subjects with IPSS-R Very Low, Low or Intermediate Risk Myelodysplastic Syndrome (MDS) and Symptomatic Anemia	Dr. Chandran K Nair
15	single dose, cross-over bioequivalence study of Azacitidine tablets 300 mg and ONUREG® (Azacitidine) tablets 300 mg in adult patients with acute myeloid leukemia (AML) under fasting condition	Dr. Chandran K Nair
16	A Prospective Phase III open label Randomized Controlled Trial evaluating the role of Neo-adjuvant chemotherapy in mandible preservation in oral cavity cancers	Dr. Anoop Akkattil
17	Phase III Open Labelled Randomized Controlled Study to Evaluate the Optimal Dose of All-Trans Retinoic Acid in the Treatment of Acute Promyelocytic Leukemia	Dr. Chandran K Nair

## STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Mrs.Maya Padmanabhan	Lecturer in Biostatistics
2	Mr.Riyas M	Lecturer in Biostatistics
NON-ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Mrs.BhavanaMoukthi	Hospital Assistant
PROJECT STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1.	Mr.Somy Kishan	Project Manager
2.	Ms.Vinsha N P	Clinical Trial Coordinator
3.	Dr.Suramya P	Clinical Trial Coordinator
4.	Ms.Amrutha K V	Clinical Trial Coordinator
5.	Ms.Subhashini K	Clinical Research Coordinator
6.	Ms.Anushara Prabhakaran	Junior Research Fellow
7.	Mrs. Sreelakshmi P G	Research Assistant
8.	Mrs.Arya Rajan Karat	Research Pharmacist
9.	Ms.Nayana Ravindran B	Research Assistant

10.	Mr.Kiransanth PP	Research Assistant
11.	Ms.Devika K P	Clinical Research Assistant
12.	Dr.Safthar Ahammed PP	Project Assistant
13.	Mrs.Udayasree	Physiotherapist
14.	Mrs.Amrutha E	Psycho Oncologist
15.	Mrs.Sneha K	Project Nurse
16.	Mr.Nitheesh Gokul M	Project Nurse
17.	Mr.Vishnu Kumar M	Lat Technician
18.	Ms.Shilna K	Data Entry Operator
19.	Ms.Lincy Linet	Data Entry Operator
20.	Ms.Ashna P	Data Entry Operator
21.	Mrs.Aiswarya K M	Data Entry Operator
22.	Ms.Swetha	Data Entry Operator
23.	Mr.Sravan O K	Data Entry Operator

## PSYCHO-ONCOLOGY DIVISION

**Name with degrees: JISHA ABRAHAM, MSc (Clinical & Counselling Psychology), M.Phil (Psycho-oncology), LECTURER**

### INTRODUCTION:

The Psycho-oncology division has been operational at this Center since July 2017. Psycho-oncology, a field combining Psychology and Oncology, addresses the behavioral, emotional, cognitive, and social aspects of cancer patients and their families. It focuses on delivering psycho-social interventions from cancer diagnosis through survivorship and palliation, thereby enhancing patients' and families' quality of life. This division integrates Psychology, Medical Social Work, and Psychiatry into cancer care.

### MAJOR FACILITIES AVAILABLE

- Psycho-social screening and Assessment for cancer patients
- Sleep interventions
- Mindfulness interventions
- Progressive Muscle Relaxation Therapy
- Biofeedback
- Geriatric Wellness (GET WELL) Clinic
- Genetic clinic
- Neuropsychological screening

### MAJOR ACTIVITIES:

- Psychological screening /assessment for patients
- Pretreatment counselling and Psycho education for patient and family
- Psycho-social and socio-economic interventions for patients
- Distress management and sleep interventions for patients with clinically significant distress and insomnia respectively.
- Counselling and Psychotherapy for pediatric and adult patients with emotional difficulties due to cancer
- Biofeedback based relaxation methods for patients with distress, anxiety, insomnia.
- Counselling for the family members dealing with cancer patients
- Deaddiction (tobacco and Alcohol) counselling for individuals
- Geriatric Wellness (GETWELL) assessment for patients above 70 years planned for curative treatment.
- Neuropsychological screening for patients undergoing neurosurgery
- Genetic Counselling for patients and family
- Organising and coordinating support groups among patient, caregivers, and survivors
- Coordinating stress management, relaxation activities and personal counselling for the staffs
- Research in Psycho-social areas of cancer
- Training in Psycho-oncology and Oncology Social Work

### AVAILABLE FACILITIES:

SL NO	NAME OF THE EQUIPMENT
1	Biofeedback Device

## FACILITIES:

- 1. Psycho-social screening and Assessment for cancer patients:** Individuals admitted to hospital wards or visiting outpatient clinics with psychological concerns are directed to the Psycho-oncology outpatient department. These patients undergo psychological screening and, when necessary, additional psychometric evaluations.
- 1. Sleep interventions:** The division assists patients in managing the insomnia or sleep related problems based on the severity of the insomnia using different sleep interventions - Psychoeducation, Sleep hygiene practices, Behavioural methods and/or medications.
- 2. Mindfulness interventions:** For patients experiencing distress or worry, mindfulness techniques are integrated with other therapeutic methods. These approaches utilize meditation, relaxation, and awareness exercises to encourage focus on the present moment, aiming to foster non-judgmental and non-reactive responses to daily situations and stressors over time.
- 3. Progressive Muscle Relaxation Therapy:** This widely-used technique addresses various psychological challenges such as stress, anxiety, depression, and insomnia. It involves systematically training clients to tense and relax muscle groups while focusing on the resulting sensations of relaxation.
- 4. Biofeedback:** This mind-body approach is used to manage stress, anxiety, insomnia, pain, and other psychosomatic issues. It helps control psychological symptoms through physiological changes. Equipment provides visual and auditory feedback to individuals about these changes, enabling them to self-manage symptoms. It serves as an aid in relaxation and other psychotherapeutic methods through feedback mechanisms.
- 5. Geriatric Wellness (GET WELL) Clinic:** Established in 2021, this clinic aims to screen patients over 70 years old who are considering curative treatment. Screening involves a comprehensive geriatric assessment, including detailed medical history, comorbidities, medication use, substance and alcohol consumption, psychiatric treatment history, and specific evaluations for cardiac risk, frailty, liver function, cognition, depression, and daily living activities.
- 6. Genetic clinic:** Patients meeting the criteria for hereditary cancer syndromes undergo assessment and genetic counseling. Detailed family history analysis is performed, and genetic tests are recommended by the consultant when necessary, accompanied by pre-test counseling.
- 7. Neuropsychological screening:** Neuropsychological assessments - Montreal Cognitive Assessment (MoCA), Mini Mental Status Examination (MMSE) and Addenbrooke's Cognitive Examination (ACE) - are conducted among the patients planned or underwent Neurological treatments or having clinical features of neurocognitive deficits. The findings help the oncologists, Psycho-oncologists and other rehabilitation staff to plan the patient care and management. The findings help the surgeon, Psycho-oncologists and other rehabilitation staff to plan the patient care and management.

## ACTIVITIES:

### A. CLINICAL ACTIVITIES

SL NO	NAME OF FACILITY	NUMBER (IN SESSIONS)
1	GET WELL Clinic	162
2	Pretreatment Counselling	1004
3	In-patient (IP) Routine Counselling	1647
4	Intensive/ Day chemo routine Counselling	312
4	IP/ Outpatient (OP) Psycho-oncology Consultation	1299

5	Discharge Counselling	1976
6	Genetic Counselling	495
7	Neuropsychological assessment	9
8	Biofeedback	8
	<b>Specialised sessions (OP)</b>	
1	Sleep interventions	1160
2	Mindfulness or Progressive Muscle Relaxation therapy	413
3	Deaddiction (Tobacco/Alcohol) Counselling	339

## **B.ACADEMIC ACTIVITIES:**

### **1. COURSES AND TRAINING PROGRAMS:**

	NAME OF THE COURSE	DURATION	NUMBER OF CANDIDATES	ADMITTED IN CURRENT YEAR	TOTAL STUDENTS
1.	Fellowship in Psycho-oncology	1 year	2	2	2
2.	Fellowship in Oncology Social Work	1 year	1	1	1
	Total Number of Students				3

### **2. ROUTINE ACADEMIC SESSIONS**

- Journal club/ Case discussion/ Academic session (Rehab) on **Friday & Saturday**
- Academics Psycho-oncology/Oncology Social Work on **Tuesday/Wednesday**
- Academics/ Research on **Thursday**
- Case discussions/ Group discussion on **Saturday**

### **3. OBSERVERSHIP/INTERNSHIP**

SL NO	NO. OF INTERNS	COURSE	INSTITUTION
1.	8	MSW	Ideal College of Advanced Studies, Kadakasser
2	7	MSW	Centre for PG Studies in Social Work, Calicut University
3.	4	MSW	MES College, Vadakara
4.	4	MSW	St. Joseph's College, Devagiri
5.	1	MSW	Christ college, Iringalakkuda
6.	2	MSW	University of Kerala, Trivandrum
7.	1	MSW	Sree Sankaracharya University of Sanskrit, Kaladycentre
8.	1	MSW	Sree Sankaracharya University of Sanskrit, Payyannurcentre
9.	1	MSW	Mangalore University, Mangalore
10.	1	MSW	Holy Cross Institute of Science & Technology, Calicut
11.	1	MSW	Mount Carmel College, Kothamangalam
12.	1	MSW	St. Gregorious College, Parumala
13.	1	MSW	Christ University, Bangalore

14.	1	B.Sc Psychology	Christ University, Bangalore
15.	1	B.Sc Psychology	Middlesex University, Dubai
16.	2	M.Sc Psycho- Oncology	Christ University, Bangalore
17.	1	M.Sc Psychology	Fathima Matha National College, Kollam
18.	2	M.Sc Psychology	Pondichery University, Pondichery
19.	1	M.Sc Psychology	MIT, Pune

SL	No. OF OBSERVER	COURSE	INSTITUTION
1.	1	MSc Psychology	Farook College, Calicut
2.	1	MSc Counselling	School of Social Work Roshn nilaya, Mangalore

### **C. RESEARCH ACTIVITIES:**

The Psycho-oncology division focuses on the research activities related to the psycho-social aspects of cancer. It includes the emotional, social, cognitive aspects of individuals and family due to cancer and its treatment.

### **ONGOING PROJECT DETAILS:**

1. Burden and Quality of Life of Informal Caregivers and its Relationship with Distress, Depression and Anxiety of Patients undergoing Chemotherapy in a Tertiary Cancer Centre: A Comparative Cross-Sectional Study, No funding available (Jisha Abraham)
2. Unmet Needs and Positive Psychological Constructs among Hematopoietic Stem Transplant Survivors: A Mixed Methods Study, No funding available (Jisha Abraham)
3. Psycho-social Problems and the Mental Wellbeing of Childhood Cancer Survivors and Healthy Children: A Cross-Sectional Comparative Study from a Tertiary Cancer Centre, No funding available (Jisha Abraham)
4. Cognitive functions, depression, frailty and ADL among geriatric cancer patients planned for curative intent surgery: A retrospective cross-sectional study, No funding available (Jisha Abraham)

### **PROJECTS COMPLETED IN CURRENT YEAR**

1. **Concerns in Breast Cancer Survivors with respect to Sexual Function, Sexual Satisfaction and Distress: A Sequential Explanatory Study** (Jisha Abraham)

This mixed method study aimed to identify the level of Sexual Function and sexual distress among Breast cancer Survivors and to better understand their individualistic sexual concerns from the perspective of the survivor, their partner and treating oncologists. The total number of participants who took part in the quantitative study N=116, and N=12 for each group of the qualitative study. Results showed that nearly half of the participants were found to have Sexual Dysfunction. Majority of the participants were found to have higher levels of Sexual Satisfaction and only eighteen participants had lower levels of Sexual Satisfaction. Major themes found among survivors were setbacks in Sexual Function, emotional upheaval, gaps in informative needs and insights, and silent barriers. Among

partners it was same as the survivors along with spiritual justifications. Oncologists reported mind-body impact of breast cancer treatment, sidelining sexual function, social repercussions, relationship struggles, reduced sexual satisfaction, and MRM v/s BCS. The study concluded that there were significant concerns related to Sexual Function.

2. **Effectiveness of Psycho-social Intervention on Distress, Body Image Satisfaction and Quality of Life among Colo-rectal Cancer Patients: An Intervention Study** (Jisha Abraham)

The study aimed to evaluate the effectiveness of psychosocial intervention on distress, body image satisfaction and QoL among CRC patients who underwent curative intent surgery using a Pretest-Posttest Randomized Control Group Design. There were a total of 27 participants in the study (control group N=4), and (experimental group N=4). Results showed that, over half the participants reported clinically significant distress, with greater body image concerns in those with a stoma. Nearly half had moderate to low QoL post-CRC surgery. Distress positively correlated with body image concerns, while both were negatively related to QoL. Though was not statistically significant, distress reduced in both groups post-intervention, but only the experimental group showed reduced body image concerns. There was no significant change in QoL was observed. Thus, the study concluded that CR surgery has psychosocial impacts on the individual.

## PUBLICATIONS

Balasubramanian S, Abraham J, Sobhith VK, Malodan R. Pattern of distress among cancer patients assessed during new patient counseling: A cross-sectional study. *Indian J Cancer*.2024;61(4):818–22.

Available from: [http://dx.doi.org/10.4103/ijc.ijc\\_797\\_21](http://dx.doi.org/10.4103/ijc.ijc_797_21).

## AWARDS, HONOURS, RECOGNITION

Ms. Jisha Abraham received Best Poster Award for the Scientific Poster Presentation at the 7th Asia Pacific Psycho-oncology Network Meeting (APPON 7) held in Chennai on January 17–18, 2025

## CONFERENCES, WORKSHOPS, TRAININGS ATTENDED:

1. ‘Challenges and burdens faced while caring for someone with cancer’ and ‘Cancer - Hard Dialogues Around Cancer - End of Life’ by Ms. Jisha Abraham, Lecturer in Psycho-Oncology at the conference ‘Oncology Conundrums: Navigating Complex Clinical Scenarios’ at JW Marriott Hotel, Aerocity, New Delhi on May 17th to 19th, 2024.
2. ‘Psychological management of Anxiety episodes during Radiation Therapy: A Case Study’ for Poster Presentation by Ms. Fathimath Naeema Nasreen, Fellow in Psycho-oncology Poster Presentation at the MVR CANCON 2024, conducted by MVR Cancer Centre and Research Institute on 29th August to 1st September, 2024.
3. ‘Navigating through the Emotional Turbulence of Loss and Grief: A Case Study’ Poster Presentation by Ms. Sangeetha U M, Fellow in Oncology Social Work at the MVR CANCON 2024, conducted by MVR Cancer Centre and Research Institute on 29th August to 1st September, 2024.
4. ‘Memory, Cognitive Functions and pattern of Distress among Breast Cancer Patients and Survivors’ Scientific Poster Presentation by Ms. Neeha Jose, Adhoc faculty in Psycho-oncology at the International Psycho-Oncology Society (IPOS 2024) World Congress of

- Psycho-oncology in Maastricht, the Netherlands on September 24th to September 27th, 2024.
5. 'Psychological Aftercare for Children Recovering from Brain Tumors' by Ms. Jisha Abraham Lecturer in Psycho-Oncology in the webinar by Hope Foundation on January 4, 2025.
  6. 'Integrating Solution Focused Approach in Cancer Care' by Ms. Jisha Abraham, Lecturer in Psycho-Oncology at the 7th Asia Pacific Psycho-oncology Network Meeting (APPON 7) at Westin Velachery, Chennai on January 17–18, 2025.
  7. 'Distress and Insomnia among cancer patients admitted for surgery: A Retrospective cross-sectional study' and 'Integrating Biofeedback with PMR for the Management of Psychological Symptoms in Oncology Care: A Single Case Study' by Ms. Jisha Abraham, Lecturer in Psycho-Oncology at the 7th Asia Pacific Psycho-oncology Network Meeting (APPON 7) at Westin Velachery, Chennai on January 17–18, 2025.
  8. Moderated the symposium titled 'The Gynecological Cancer Survivorship: The Life Continues' at the 7th Asia Pacific Psycho-oncology Network Meeting (APPON 7) by Ms. Jisha Abraham, Lecturer in Psycho-Oncology at Westin Velachery, Chennai on January 17–18, 2025.
  9. 'Surviving and Thriving: Exploring Familial and Social Challenges of a Gynecological Cancer Survivor' by Ms. Neeha Jose, Ad-hoc Faculty (Psycho-oncology) at the 7th Asia Pacific Psycho-oncology Network Meeting (APPON 7) at Westin Velachery, Chennai on January 17–18, 2025.
  10. Mr. Sobhith V. K attended the 7th Indian Cancer Genetics Conference and Workshop (ICGCW 2025) by Tata Memorial Hospital and ACTREC, Mumbai, India held from 20th February to 23rd February, 2025.
  11. "Communication" by Mr. Sobhith V. K, Medical Social Worker at MCC-PGIOSR on February 10th and 11th, 2025
  12. 'Career opportunities in Psycho-Oncology' by Ms. Jisha Abraham, Lecturer in Psycho-Oncology at Webinar on Career Opportunities by SB College, Changanassery on 6<sup>th</sup> March, 2025, 7.00pm.

## EVENTS

- **Two Day Workshop on Clinical Hypnotherapy:** Organized two day workshop on Clinical Hypnotherapy on July 13th and 14th, 2024 at the conference hall of Pediatric Hematology Oncology Block, MCC-PGIOSR. A total of 24 participants attended the workshop. Dr. Jini K Gopinath, Clinical Hypnotherapist and Clinical Psychologist, was the resource person for the event.



- **World Mental Health Day Observation:** The Psycho-Oncology division organized Group Relaxation Therapy Session for the employees of MCC-PGIOSR as part of the World mental Health Day Observance on October 10th and 11th, 2024 from 4:15 pm to 5:00 pm. The theme for the year was "Mental Health in Workplace". Thirty six staff attended the

session in 2 days. All staff and students signed the poster depicting the mental health day theme and Green badges were distributed.



## STAFF

ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Jisha Abraham	Lecturer
NON-ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Sobhith V K	Medical Social Worker

## DEPARTMENT OF ONCOLOGY NURSING

**HEAD OF THE  
DEPARTMENT**

**MRS: SREELATHA P (BSC NURSING, PGDHHM)  
NURSING SUPERINTEND**



### INTRODUCTION

The Malabar Cancer Centre was established in November 2000. The Nursing Department commenced operations with a team consisting of 1 Nursing Superintendent, 2 Senior Nurses, 14 Staff Nurses, and 10 Nursing Assistants. Initially, the department started with an OPD, and after two months, the Inpatient Department was established with 18 beds. Simultaneously, the first chemotherapy sessions were initiated. The Operation Theatre became operational after two months. In 2007, a specialized staff nurse was assigned to the Palliative Unit. Subsequently, specialized nurses in palliative care established Stoma Care and Lymphedema Care Clinics. On 2011, daychemo chemotherapy unit started with 18 beds. Bone marrow transplant unit started in 2013 with 1 bed. Intensive chemotherapy unit started in 23.11.2014. Nurse lead clinic CVAD started in 2017 with a specially trained staff from TATA memorial hospital. In 2021 February nuclear medicine outpatient unit started. In Nov 2021 Nuclear medicine inpatient started with 2 beds.

In 2008, the BCCPN and CCCPAN courses were introduced, overseen by the Palliative Nurse Coordinator. MCC currently qualified specialist nurses in various departments, with three Nurses-lead clinics (CVAD, Lymphedema & Stoma and Day Chemotherapy Unit). The majority of our nurses have received training from reputed institutions. Nurses play a significant role in organizing early cancer detection camps, cancer screening programs, and providing home care services. The primary objective of Onco-Nursing is to ensure patient safety by continually update the knowledge of nurses and actively engage in diverse quality improvement projects, with the ultimate aim of achieving nursing excellence in the near future.

### NURSE LEAD CLINICS

#### 1. CVAD CLINIC

The CVAD clinic started functioning on June 5<sup>th</sup>, 2017. CVAD Nurse is *Ms. Bijitha .P*

<b>2024 APRIL TO 2025 MARCH</b>								
MONT H	PICC INSERT ION	PICC DRESSIN G	CAT RESUTURI NG	PICC FRAC TURE REPAI R	PICC REMOV AL	PRE INSERTI ON COUNSE LLING	SUBCU TANOU S POST DRESSI NG	BLOO D COLL ECTI ON
APRIL	11	158	1	1	7	12	38	129
MAY	11	149		1	11	13	34	135
JUNE	11	139		2	5	12	37	141
JULY	16	147		2	6	18	42	146
AUGU ST	16	145		2	8	20	44	162

SEPTEMBER	15	174		1	9	17	41	169
OCTOBER	19	197		5	7	22	56	173
NOVEMBER	13	190	1		10	15	59	197
DECEMBER	11	190	2	1	4	14	52	171
JANUARY	14	309		1	8	16	42	162
FEBRUARY	9	179		4	8	16	42	162
MARCH	14	173	1	4	6	24	38	173
TOTAL	160	2150	5	24	89			

## 2. LYMPHEDEMA & STOMA CLINIC

Lymphedema and Stoma Clinic managed by *Ms. Sheeja Nellikka*.

<b>STOMA</b>	<b>LYMPHDIMA</b>
<b>2616</b>	<b>1230</b>

## 3. DAYCARE CHEMO THERAPY

New Day care chemotherapy unit started functional in December 2024. The department is managing by *Ms. Sindhu .N .R*.

	Chemo Therapy	BCG	Blood Transfusion	Admission	Academic Patient Education	Sessions Staff Education
<b>TOTAL</b>	<b>20460</b>	<b>61</b>	<b>57</b>	<b>27</b>	<b>53</b>	<b>28</b>

## MAJOR ACTIVITIES

### A. WORKSHOPS CONDUCTED

- a. Workshop on IV canulation, 2024 May

### B. CONFERENCE / WORKSHOPS ATTENDED BY STAFF MEMBERS

- a. ISBMT Conference 2024
- b. Online workshop on introduction to Peadiatric oncology nursing organized by CMC Vellore .
- c. ONCON 2025 National conference on oncology nutrition.
- d. WEBINAR Series 1<sup>st</sup> and 2<sup>nd</sup> – Childhood Cancers : The essential role of a PeadiatricOncology Nurse.
- e. Nursing conference – 3<sup>rd</sup> National Peadiatric oncology nursing conference organized by TATA Memorials Hospital Mumbai and National Cancer Grid
- f. C INV conducted by Dr.Gopakumar on 07/01/2025.
- g. Infection control nurse attended infection control National conference at Puduchery .
- h. SIOP(International Society Of Pediatric Oncology) online webinars and meetings

- i. IAP- PHO(Indian Academy of Paediatrics-Pediatric Hematology Oncology) chapter-nursing working group online webinars
- j. Webinar series 1and2 - Child hood Cancers: The Essential role of a paediatric oncology nurse.
- k. Webinar on World Autism Awareness day- 2nd April 2025.
- l. Retinoblastoma 2024 - Organized by St Jude ,USA ,Memphison 26 June 2024
- m. Onco- habitare 24- online webinar conducted by MCC on 25/10/24 to 26/10/24.
- n. Lymphoma Chemo-CAR T cell therapy- Online webinar by Dr Chandran on 29/10/24.
- o. Monitoring Central venous catheter related outcome -SIOP on 16/1/25

**C. RESEARCH / PROJECTS**

- a. Ongoing research Project-Effectiveness of Structured Video- Assisted Teaching module in Improving Knowledge and Practice of Hand Hygiene among Primary Caregivers of Children with Cancer
- b. EQUIP INDIA 2024 : on the topic *Delayed Unplanned admission from Casualty to Female ward* .
- c. A structured nursing handover Technique using Anticipate format in a paediatric oncology unit - Doing a project at MCC

**D. PAPER PRESENTATION**

- a. Oral presentation on the topic *Pre-test-baseline data* at National-level pediatric oncology nursing conference at Tata Memorial hospital ,Mumbai
- b. Poster presentation at Pediatric Haemato-oncology nursing conference on the topic *Moderate analgesia for procedures duringtreatment for pediatric malignancies* atAIIMS ,New Delhi.

**E. START UP PROGRAMS**

- a. Participated in IDEATHONE 2024 to foster innovative startup ideas from nurses.
- b. Participated in MINT HACKATHON 2025 , February on Extravasation detector , Wound manager bag , Robotic bed solutions , Patient feedback app , Radio opaque gauzedetector .

**F. IN - SERVICE EDUCATION PROGRAM**

- a. Palliative care classes :conducted regular classes regarding Palliative care by the PalliativeNurse .
- b. Chemotherapy sessions on various topics by the chemotherapy staff
- c. Training on CVAD for bothinside & outside participants by CVAD Nurse.
- d. Moodle training on Infection control practices
- e. BLS & ACLS training
- f. Attended various mock drills
- g. Regular classes based on NABH chapters and standards
- h. Classes on Infection control practices
- i. Webinar on *effective communication in Health care*By Prof. Ponnamma.
- j. **Training data (April 2024- March 2025)**

MONTH	No.of Classes
APRIL	4
MAY	9
JUNE	3
JULY	1
AUGUST	2
SEPTEMBER	0

OCTOBER	5
NOVEMBER	0
DECEMBER	0
JANUARY	1
FEBRUARY	2
MARCH	1
TOTAL	28

**G. EVENT / DAY CELEBRATION**

International Nurse's day celebrated with two days workshop and many staff skill development programs.

**H. TRAINING TO OTHER STAFF / STUDENTS**

- a. Class to Medical Secretary Students and staff on the *Topic First Aid Management Part 1 & 2*
- b. Class to Malani construction staff on the *Topic First Aid Management* By Nursing Superintendent 22.03.25
- c. BLS training to INSeR students

**I. PATIENT / PUBLIC AWARENESS PROGRAM & COMMUNITY OUTREACH PROGRAM**

- a. Conducted Arogyam Anandam PEC Lecture series in collaboration with INSeR

**J. ADMISSION IN FELLOWSHIP PROGRAM: Ms. Anjana G. N from Paediatric oncology department got admission in Nursing fellowship - International Evidence Based Practice Nursing (EBP) fellowship programme organized by St. Jude Children's Research hospital, Memphis, USA ( Admission in the month of February 2025 )**

**K. MEMBERSHIP AND PARTICIPATION**

- a. International society of Paediatric Oncology (SIOP )
- b. Trained Nurses association of India (TNAI)
- c. Oncology Nurses Association of India (ONAI)
- d. World Palliative Service
- e. Ostomy Nurses Association of India (ONAI)
- f. Indian Association of Palliative care (IAPC)

**L. Certificate courses**

Short term certificate course in Chemotherapy Nursing started in March 2025

**M. Quality improvement activities & achievements in the Operating Theatre (OT)**

1. The OT staff at Malabar Cancer Centre demonstrate exceptional commitment to clinical excellence and advanced patient care. They are expertly trained in specialized procedures such as Retinoblastoma treatments, robotic-assisted surgeries, HIPEC, intraoperative nerve monitoring, stapler techniques, and the use of advanced energy devices. Their proficiency in 3D laparoscopy and laser treatments highlights their adaptability and dedication to cutting-edge surgical practices, ensuring high-quality outcomes in cancer care.
2. The OT staff at Malabar Cancer Centre have made notable contributions to innovation and education in surgical care. They developed an award-winning handheld device to detect missing instruments during surgery, enhancing patient safety. Additionally, they authored a comprehensive handbook for nurses and theatre technicians, promoting standardized perioperative practices.

These efforts reflect their commitment to safety, learning, and continuous improvement.

## **J. Other divisions under the Department**

### **1. Central Sterilization and Supply Unit**

The Central Sterile Supply Division (CSSD), functioning under the **Department of Onco Nursing** at Malabar Cancer Centre, commenced its operations in **March 2018**. Since its inception, the division has remained a cornerstone in ensuring the **safe, effective, and consistent sterilization** of all surgical and medical instruments used in patient care.

In the financial year **2024–2025**, the CSSD continued to deliver services strictly in compliance with the **NABH Standard Guidelines**, focusing on **infection control, patient and staff safety**, and **operational efficiency**. All activities were systematically supervised and routinely validated to meet the high expectations of quality in a cancer care environment.

The three zones of CSSD are :

#### **Zone-1: Unclean area**

- Reception and preliminary decontamination of used instruments and materials

#### **Zone-2: Clean area**

- Inspection, assembly, and packaging of medical instruments post decontamination.

#### **Zone-3: Sterile area.**

- Storage and dispatch of sterilized instruments, ensuring aseptic handling.

This zone-wise segregation minimizes the risk of cross-contamination and enhances overall process integrity.

#### **EQUIPEMNT IN CSSD**

<b>SI No</b>	<b>Name of equipment</b>
1.	Steam sterilizer
2.	Plasma sterilizer
3.	STERRAD 100S Sterilizer
4.	ETO sterilizer
5.	Sealing machine
6.	Washer disinfectant
7.	Ultrasonic cleaner
8.	Hot air oven
9.	Hand labeling machine
10.	Gauze cutting machine
11.	Compressed air gun
12.	Stainless steel furniture

### **2. Nursing Assistants, Patient Care Assistants & Housekeeping Department**

This staffs are also working under the direct supervision of Nursing Department.

## STAFF

SI No	Name of Staff	Designation
1.	Sreelatha .P	Nursing superintendent
2.	Shyni AF	Head Nurse
3.	Sreelatha T N	Staff NurseGR.I
4.	Sabitha K	Staff NurseGR.I
5.	Sindhu N R	Staff NurseGR.I
6.	Maya P K	Staff NurseGR.I
7.	Sheeja Nellikka	Staff NurseGR.I
8.	Bijitha P	Staff NurseGR.I
9.	Abhina SS	Staff Nurse GR.I
10.	Smitha Grace	Staff Nurse GR.I
11.	Sindhu S	Staff Nurse GR.I
12.	Shaija E	Staff Nurse GR.I
13.	Navamy T C	Staff Nurse GR.I
14.	Ligy Jose	Staff Nurse GR.II
15.	Seena E	Staff Nurse GR.II
16.	Jisha K	Staff Nurse GR.II
17.	Kavitha C N	Staff Nurse GR.II
18.	Saritha N	Staff Nurse GR.II
19.	Sajina N	Staff Nurse GR.II
20.	Smithamol D	Staff Nurse GR.II
21.	Sachithra E	Staff Nurse GR.II
22.	Sujatha K	Staff Nurse GR.II
23.	Prajina E	Staff Nurse GR.II
24.	Sheena C	Staff Nurse GR.II
25.	Saritha K R	Staff Nurse GR.II
26.	Sreeja Kumari S	Staff Nurse GR.II
27.	Sunitha Kumari	Staff Nurse GR.II
28.	Ashamol M A	Staff Nurse GR.II
29.	Anuthara R	Staff Nurse GR.II
30.	Shabina Pallipravon	Staff Nurse GR.II
31.	JemyLaiju	Staff Nurse GR.II
32.	Shiji Paulose	Staff Nurse GR.II
33.	Bindu Raman	Staff Nurse GR.II
34.	Sumi P R	Staff Nurse GR.II
35.	Blassy P	Staff Nurse GR.II
36.	Athira K Chandran	Staff Nurse GR.II
37.	Jeleema Lawrence	Staff Nurse GR.II
38.	Sherjin A J	Staff Nurse GR.II
39.	Shijila V	Staff Nurse GR.II
40.	Sajitha P	Staff Nurse GR.II
41.	Sibi K Daniel	Staff Nurse GR.II
42.	Jisha P	Staff Nurse GR.II
43.	Asha John V	Staff Nurse GR.II
44.	Sreejisha P	Staff Nurse GR.II
45.	Nirmala Nallachery	Staff Nurse GR.II
46.	Shiji P	Staff Nurse GR.II

47.	Sumadevi . S	Staff Nurse GR.II
48.	Shimna Sebastian	Staff Nurse GR.II
49.	Silja Kurian	Staff Nurse GR.II
50.	Soumya Mathew C M	Staff Nurse GR.II
51.	Anjana G N	Staff Nurse GR.II
52.	Sajika M J	Staff Nurse GR.II
53.	Vijina K	Staff Nurse GR.II
54.	Divya C M	Staff Nurse GR.II
55.	Ameer Sanchani O	Staff Nurse GR.II
56.	Rinsha P K	Staff Nurse GR.II
57.	Jithin T P	Staff Nurse GR.II
58.	Jayasree V K	Staff Nurse GR.II
59.	Shamseer K	Staff Nurse GR.II
60.	Nidhina K P	Staff Nurse GR.II
61.	Praseeda K	Staff Nurse GR.II
62.	Srijil A	Staff Nurse GR.II
63.	Aiswarya K S	Staff Nurse GR.II
64.	Vineeth Krishnan	Staff Nurse GR.II
65.	Praseetha M	Staff Nurse GR.II
66.	Prasanth C Das	Staff Nurse GR.II
67.	Sini S S	Staff Nurse GR.II
68.	Shiniraj R	Staff Nurse GR.II
69.	Nimmy P V	Staff Nurse GR.II
70.	Akash Surendran	Staff Nurse GR.II
71.	Jibin K V	Staff Nurse GR.II
72.	Sijo Augustine	Staff Nurse GR.II
73.	Eana S	Staff Nurse GR.II
74.	Chithira B	Staff Nurse GR.II
75.	Jolly K J	Staff Nurse GR.II
76.	Jincy Xavier	Staff Nurse GR.II
77.	Haseena mol K A	Staff Nurse GR.II
78.	Roni Antony	Staff Nurse GR.II
79.	Bhavya K K	Staff Nurse GR.II
80.	Manjima T	Staff Nurse GR.II
81.	Sabitha C S	Staff Nurse GR.II
82.	Navya T K	Staff Nurse GR.II
83.	Anjana SR	Staff Nurse GR.II
84.	Bijesh Mohan	Staff Nurse GR.II
85.	Satheesh M	Staff Nurse GR.II
86.	Rajalekshmi V	Staff Nurse GR.II
87.	Sunera Rajan	Staff Nurse GR.II
88.	Sreeja K	Staff Nurse GR.II
89.	Sreenivas	Staff Nurse GR.II
90.	Simimol V	Staff Nurse GR.II
91.	Aneesha S	Staff Nurse GR.II
92.	Seena Mathew	Staff Nurse GR.II
93.	Soumya Jose	Staff Nurse GR.II
94.	Kasthoori S	Staff Nurse GR.II
95.	Jayakrishna Prabhu	Staff Nurse GR.II

96.	Deepa Mathew	Staff Nurse GR.II
97.	Deepuraj P	Staff Nurse GR.II
98.	Sabitha M S	Staff Nurse GR.II
99.	Ajith N	Staff Nurse GR.II
100.	Sabeena Mathew	Staff Nurse GR.II
101.	Abhilash K K	Staff Nurse GR.II
102.	Sindhu M	Staff Nurse GR.II
103.	Jitha Joseph	Staff Nurse GR.II
104.	Maneesh P	Staff Nurse GR.II
105.	Meera R Nair	Staff Nurse GR.II
106.	Neha S	Staff Nurse GR.II
107.	Ash Gopi G S	Staff Nurse GR.II
108.	Fathimath Suhara P K	Staff Nurse GR.II
109.	Ansil M	Staff Nurse GR.II
110.	Naseema P P	Staff Nurse GR.II
111.	Tessy jose	Staff Nurse GR.II
112.	Remya Raveendran	Staff Nurse GR.II
113.	Manju Mathew	Staff Nurse GR.II
114.	Ancy M Panicker	Staff Nurse GR.II
115.	Jerry	Nursing Assistant
116.	Lethiamma P R	Nursing Assistant
117.	Deepa Prabha O B	Nursing Assistant
118.	Kalamol A B	Nursing Assistant
119.	Shobitha L	Nursing Assistant
120.	Biju Prasad	Nursing Assistant
121.	Shibu S	Nursing Assistant
122.	Mary I C	Nursing Assistant
123.	Ajimol Dominic	Nursing Assistant
124.	Mercy John	Nursing Assistant
125.	Sreejith S	Nursing Assistant
126.	Dhanya P M	Nursing Assistant
127.	Dhanya E	Nursing Assistant
128.	Rehana T	Nursing Assistant
129.	Shibila T	Nursing Assistant
130.	RekhaMuraleedharan	Nursing Assistant
131.	Nisha T	Nursing Assistant
132.	Midhun Gopalakrishnan	Nursing Assistant
133.	Neethu B S	Nursing Assistant
134.	Shamla N	Nursing Assistant
135.	Ragi Sandhya	Nursing Assistant
136.	Bindhu K M	Nursing Assistant
137.	Zeenath Bhattantevida	Nursing Assistant
138.	Santhini Chandran	Nursing Assistant
139.	Prajina E K	Nursing Assistant
140.	Jinshi R S	Nursing Assistant
141.	Surya C	Nursing Assistant
142.	Kavitha Prakash	Nursing Assistant
143.	Sajna K K	Nursing Assistant
144.	Silna K K	Nursing Assistant

145.	Abhitha C A	Nursing Assistant
146.	Jiji P S	Nursing Assistant
147.	Suma S	Nursing Assistant
148.	Indhu P	Nursing Assistant
149.	Neena A P	Nursing Assistant
150.	Reshma V	Nursing Assistant
151.	RIYA K	Nursing Assistant
152.	Krishna Kumar K	CSSD In- charge

## DEPARTMENT OF GENERAL ADMINISTRATION

<b>HEAD OF DEPARTMENT</b>	<b>RAJESH A. K (MA, MBA ADMINISTRATIVE OFFICER</b>
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### INTRODUCTION

The General Administration Department, established in 2001, ensures efficient hospital operations and adequate staff training and support. Its key responsibilities include overseeing daily administrative operations, monitoring expenses, proposing cost-effective alternatives, creating budgets, developing and implementing operational policies, preparing work schedules, and maintaining organized medical and employee records. The administration coordinates institute activities, creates policies for efficient staff functioning, and recruits various personnel including Doctors, Academicians, Officers, and other paramedical and scientific/technical staff. Employees undergo periodic evaluations and receive guidance and training to maximize their output. The General Administration Department, under the leadership of Director lead the administrative services of the Institution and are directly responsible for the day-to-day operations.

### DIVISIONS UNDER THE DEPARTMENT

- **General Administration Division**
- **Hospital Administration Division**
- **Academic Division and Library & Information Sciences**
- **Accounts Division**
- **Purchase/ Stores and Pharmacy Division**
- **Human Resources and Establishment Division**
- **Security Division**

## GENERAL ADMINISTRATION DEPARTMENT

**HEAD OF DEPARTMENT :SHRI. RAJESH A.K(MA, MBA)**

**DESIGNATION: ADMINISTRATIVE OFFICER**

This Department outlines the duties of those in charge of governance to ensure ethical management of the organization. It defines employee rights and responsibilities, and develops Hospital Policies, organogram, and service updates for the benefit of patients and staff.

### HOSPITAL ADMINISTRATION DIVISION

**IN CHARGE OF DIVISION: ANITHA.T (MHA, MBA)**

**DESIGNATION: HOSPITAL ADMINISTRATOR**

The Division of Hospital Administration oversees daily operations to ensure high-quality oncology care and patient satisfaction. It consists of two primary units: **Public Relations** and **Clinical Services**, along with multiple sections managing registration, admission, follow-up,

insurance processing, billing, help desk, certificates, reimbursements, and hospital communication. Additionally, the Division coordinates funding from NGOs to support underprivileged patients, ensures infrastructure maintenance, and manages compliance, workforce training, and quality assurance.

The **Public Relations Wing** serves as the hospital's communication hub, addressing patient concerns, coordinating outreach programs, and strengthening relationships with stakeholders. It plays a crucial role in enhancing patient experience, managing efforts, and ensuring effective hospital-public engagement. By integrating administrative and patient-focused services, the Division maintains operational efficiency while prioritizing compassionate healthcare delivery.

## **ACADEMIC DIVISION AND LIBRARY & INFORMATION SCIENCES**

**IN CHARGE OF DIVISION: SUBHASH CHANDRAN. A. K (MLIS, MPHIL)**

**DESIGNATION: MEDICAL LIBRARIAN**

The Medical Library of MCC(PGIOSR) offers seamless learning resources to its users. Medical Library acts as a knowledge hub and backbone of research and academic activities, through world class resources and value added information services in all areas of Oncology and related disciplines. Medical Library provides integrated library infrastructure for the effective use of electronic resources. All administrative works related to purchase of medical books, subscription of journals, scrutiny of bills for the payment, calling for tenders, quotations, etc., are carried out, under this Division.

## **ACCOUNTS DIVISION**

**IN CHARGE OF DIVISION: REJISANKAR.S.T (MBA)**

**DESIGNATION: FINANCE /ACCOUNTS OFFICER**

The Accounts Division is involved in planning, budgeting, accounting, financial reporting, and internal controls including internal audit, procurement, disbursement of funds, and monitoring the physical and financial performance, with the main aim of managing resources efficiently and achieving pre-determined objectives. Sound financial management is a critical input for decision-making and programme success. Accurate and timely financial information provides a basis for informed decisions about the programme, and fund release and assists in reducing delays in necessary delays in the implementation of various activities. The Division also handles various financial assistance scheme of Government and also Billing Desk

## **PURCHASE/ STORES AND PHARMACY DIVISION**

**IN CHARGE OF DIVISION: JIJU T.T.V (MBA)**

**DESIGNATION: PURCHASE OFFICER**

All purchase matters, including medicine purchase, are handled by this Division. All purchases of the Centre are routed through this Division, including local purchases. Purchase procedures are carried out, following Store Purchase Rules. The important functions of this Division are to ensure competent quality execution of all regular purchasing duties and administrative works, preparation of reports, summarize data including sales report and book value, support relevant Departments with quotations for the purpose of tenders, monitor and co-ordinate deliveries of items between suppliers to ensure that all items are delivered to site/store on time, plan and manage inventory levels of materials or products etc.

## **HUMAN RESOURCES & ESTABLISHMENT DIVISION**

**IN CHARGE OF DIVISION: REJISANKAR.S.T (MBA)**

**DESIGNATION: FINANCE /ACCOUNTS OFFICER**

This Division maintains all the personal records of staff, their service matters, recruitment procedures, appointment, posting, leave matters, attendance etc: The overall matters of staffs are looked after by this Section and plays a pivotal role in maintaining discipline of the institution.

## **SECURITY DIVISION**

**IN CHARGE OF DIVISION: RAJESH A.K(MA, MBA)**

**DESIGNATION: ADMINISTRATIVE OFFICER**

The overall security of the Institute is managed by this Division. Security guards are ex-servicemen and are outsourced through KEXCON (Kerala Sate Ex-Servicemen Development and Rehabilitation Corporation). They guard the Campus 24x7 and are posted in various areas of the campus. Vigilant security measures are undertaken as lot of highly sophisticated and costly state of art equipments are installed under Atomic Energy Regulatory Board (AERB) regulations. and handles Fires Safety of the Institution.

## **INAUGURATIONS CONDUCTED**

Inauguration of the following Projects were conducted during the year 2024-25, by the Hon'ble Chief Minister of Kerala.

- 'AMRUTHAM-2024' – on 22<sup>nd</sup> July 2024, at Municipal Town Hall Thalassery, via online.
- Inauguration of Treatment & Academic Block (KIIFB Phase-I) on 25<sup>th</sup> January 2025.
- Inauguration of Modernization of Laboratories, Blood Bank, Operation Theaters etc:- on 25<sup>th</sup> January 2025.
- Inauguration of Establishing Robotic surgery facility (KIIFB Phase-I) on 25<sup>th</sup> January 2025.
- Inauguration of Malabar Cancer Centre Innovation & Incubation Nest (MIINT) - on 25<sup>th</sup> January 2025.
- Inauguration of Handing over Wireless Infusion Monitoring System, using DRIPO - on 25<sup>th</sup> January 2025.

## **MEETINGS**

### **➤ EXECUTIVE COMMITTEE**

During the period 3 Executive Committee meetings were conducted

- 89<sup>th</sup> Executive Committee meeting was held at the Discussion room of MCC(PGIOSR), on 06.06.2024.
- 90<sup>th</sup> Executive Committee meeting was held at the Conference Hall of MCC(PGIOSR) on 24.10.2024

### **➤ HOD COMMITTEE**

Head of Department (HOD) Committee was convened on the following dates:

- 25.05.2024
- 20.07.2024
- 19.10.2024
- 21.12.2024
- 22.02.2025

➤ **ADMINISTRATIVE COMMITTEE**

Administrative Committee was convened on the following dates:

- April 2024 (03.04.2024, 11.04.2024, 18.04.2024, 25.04.2024)
- May 2024 (03.05.2024, 08.05.2024, 15.05.2024, 22.05.2024)
- June 2024 (03.06.2024, 12.06.2024, 25.06.2024)
- July 2024 (04.07.2024, 12.07.2024, 18.07.2024, 25.07.2024, 31.07.2024)
- August 2024 (07.08.2024, 14.08.2024, 21.08.2024)
- September 2024 (04.09.2024, 19.09.2024, 28.09.2024)
- October 2024 (03.10.2024, 10.10.2024, 16.10.2024, 23.10.2024, 30.10.2024)
- November 2024 (06.11.2024, 14.11.2024, 21.11.2024, 27.10.2024)
- December 2024 (04.12.2024, 11.12.2024, 18.12.2024)
- January 2025 (01.01.2025, 08.01.2025, 15.01.2025, 23.01.2025, 30.01.2025)
- February 2025 (06.02.2025, 12.02.2024)
- March 2025 (01.03.2025, 05.03.2025, 14.03.2025, 18.03.2025, 26.03.2025)

➤ **EXTERNAL COMMITTEES**

SL. NO	COMMITTEE	NO.OF MEETINGS CONDUCTED
1	Scientific Advisory Committee (SAC)	1
2	Research Advisory Committee (RAC)	0
3	Institutional Ethics Committee (IEC)	4
4	Intra Mural Research Fund Review Committee	1

➤ **INTERNAL COMMITTEE-ACADEMIC**

SL. NO	COMMITTEE	NO.OF MEETINGS CONDUCTED
1	Academic Council	12
2	Institutional Review Board –Scientific Committee(IRB-SRC)	17
3	Academic Standing Committee	2
4	Academic Monitoring Cell	12

➤ **INTERNAL COMMITTEES**

SL. NO	COMMITTEE	NO.OF MEETINGS CONDUCTED
1	Hospital Management Committee	12
2	Nursing Administration	3
3	Scheme Review Committee	9
4	Biomedical Waste Management Committee	8
5	Pharmaco Therapeutics Committee	5
6	Hospital Blood Transfusion Committee	4
7	Grievance Committee	

➤ **OTHER COMMITTEES**

SL. NO	COMMITTEE	NO.OF MEETINGS CONDUCTED
1	Hospital Infection Control	12
2	Medical Records Committee	7
3	Facility Management & Safety Committee eng	1
4	Clinicians Committee	12
5	Grievance Handling Committee	1
6	Internal compliance Committee	4
7	Quality Cell	9
8	Code Blue Committee	3
9	Radiation Safety Committee	4

**RIGHT TO SERVICE ACT - DATA FROM 01.04.2024 TO 31.03.2025**

MONTH	NO OF CERTIFICATES ISSUED	TOTAL NO OF APPLICATIONS PROCESSED EXCEEDING THE TIME LIMIT	TOTAL NO OF FIRST APPEALS	TOTAL NO OF SECOND APPEALS
April 2024	910	0	0	0
May 2024	1056	0	0	0
June 2024	980	0	0	0
July 2024	1270	0	0	0
August 2024	1188	0	0	0
September 2024	1091	0	0	0
October 2024	1264	0	0	0
November 2024	1163	0	0	0
December 2024	1235	0	0	0
January 2025	1394	0	0	0
February 2025	1217	0	0	0
MARCH 2025	1190	0	0	0
<b>Total</b>	<b>12643</b>	<b>0</b>	<b>0</b>	<b>0</b>

**NEW GUIDELINES/SOP CREATED,**

- SOP on probation
- Guidelines on deputing Officers for attending various courses (Online) on a cost-sharing basis
- Guidelines on carrying out works, where multiple Divisions are engaged.
- Guidelines for attending Conferences, Seminars, Workshops & CME's for Adhoc faculty, Residents, Trainees, Non-academic staffs

- Work flow of leave policy
- Guidelines for resignation, contract extension, and compliance procedures for contract, stipendiary and non-stipendiary Trines and Adhoc appointments.
- SOP for PhD Monitoring Committee
- Academic Office guidelines
- Guidelines on MCC(PGIOSR) visit
- Guidelines for Senior Resident appointments
- Guidelines for Celebrations, within the Institution
- Revised guidelines- Financial Assistance Schemes
- Sports policy for staffs and students

### **RIGHT TO INFORMATION ACT - DATA FROM 01.04.2024 TO 31.03.2025**

Number of applications received by Public Information Officer-MCC, during the period	14
Number of applications received by Appellate Authority- MCC, during the period	0
Number of hearings conducted by Chief State Information Commission, during the period	0

### **PERMENANT STAFF WHO HAD JOINED THE INSTITUTION DURING THE PERIOD APRIL 2024 TO MARCH 2025**

SL. NO	NAME	DESIGNATION	DEPARTMENT	DOJ
1	Dr.ArunKrishnan.M.P	Assistant Professor in Medical Oncology	CHMOG	01.04.2024
2	Dr.Preethi.K.P	Assistant Professor in Radiodiagnosis/Radiology	Radiodiagnosis/Radiology	01.01.2025
3	Smt.Sindhu Rajesh	Nursing Superintendent	Onconursing	08.01.2025
4	Dr.Dhyana.V	Assistant Professor in Respiratory Medicine/Pulmonology	Respiratory Medicine & Critical Care	22.02.2025
5	Dr.Arya Gopi	Assistant Professor in Respiratory Medicine/Pulmonology	Respiratory Medicine & Critical Care	25.02.2025

### **STAFF WHO HAD LEFT INSTITUTION DURING THE PERIOD APRIL 2024- MARCH 2025**

SL. NO	NAME	DESIGNATION	DEPARTMENT /DIVISION	DATE OF RELIEVING
1	Asalah.T.H	Technician Nuclear Medicine	Nuclear Medicine	19.08.2024

2	Sreelatha P	Nursing Superintendent	Onco Nursing	9.8.2024
3	Shibimol Thomas	Staff Nurse Gr.Ii	Onco Nursing	05.09.24
4	Dr. Rajesh Krishna.P	Assistant Professor in Neurosurgery	Surgical Oncology	27.09.2024
5	Dr.Nrithi .S Prasad	Assistant professor Radiodiagnosis	Radiology/ Radiodiagnosis	02.11.2024
6	Dr. Anu Mariyam Ninan	Assistant professor Respiratory Medicine	Respiratory Medicine & Critical Care	20.12.2024
7	Deepa Prabha	Nursing Assistant	Onco Nursing	Expired on 05.02.2025
8	Ameer Sanchani O	Staff Nurse Gr.Ii	Onco Nursing	26.03.2025

**ACADEMIC STAFF (PERMANENT) STAFF POSITION, AS ON 31.03.2025**

SL NO	NAME	DESIGNATION
1	Dr.Neetu.A.P	Lecturer
2	Dr.Greeshma.K.E	Associate Professor
3	Dr.Saina Sunilkumar	Lecturer
4	Dr.Geetha.M	Professor
5	Dr.Phinse M Philip	Assistant Professor
6	Dr.Satheesan.B	Director
7	Dr.M.S.Biji	Assistant Professor
8	Silpa Ajaykumar	Radiation Physicist
9	Suja.C.A	Radiation Physicist
10	Dr.Chandran K Nair	Professor
11	Dr.Nizamudheen	Additional Professor
12	Dr.Sithara Aravind	Additional Professor
13	Dr.Aswathi Krishnan	Associate Professor
14	Dr.Sangeetha K Nayanar	Professor
15	Resmi K Bharathan	Radiation Physicist
16	Bindu.T	Lecturer Biostatistics
17	Ratheesan.K	Lecturer Biostatistics
18	Dr. SARATH. K. E	ASSISTANT PROFESSOR
19	Dr.Sajani Samuel	Associate Professor
20	Dr.Nikhil Mohan	Assistant Professor
21	Dr.Vinin.N.V	Additional Professor
22	Dr.Joneetha Jones	Associate Professor
23	Dr.V.P.Praveen Kumar	Associate Professor
24	Dr.Jithin.T.K	Assistant Professor
25	Dr.Pramod Sankar.S	Associate Professor
26	Deepak Roshan.V.G	Associate Professor- Cytogenetics

27	Dr.Adarsh.D	Associate Professor
28	Dr.Mohandoss.M	Additional Professor
29	Dr.Kandathil Joseph Philip	Assistant Professor
30	Dr Anju Radhakrishana Kurup	Lecturer
31	Dr. Shoaib Nawas P N	Assistant Professor
32	Dr.R Parthiban	Additional Professor
33	Dr.Jashma C	Associate Professor
34	Dr.Sindhu E R	Assistant Professor
35	Dr.Arun P Narendran	Assistant Professor
36	Dr Nabeel Yahiya E K	Assistant Professor
37	Maya Padmanabhan	Lecturer Biostatistics
38	Jisha Abraham	Lecturer Psycho Oncology
39	Dr.SARAVANAN M	ASSISTANT PROFESSOR
40	Dr.Shamna Mohammed	Assistant Professor
41	Lisha Jose	Lecturer Radiation Physics
42	Riyas M	Lecturer Biostatistics
43	Dr.Vipin Gopinath	Assistant Professor
44	Dr Akhil P Suresh	Assistant Professor
45	Ashitha R G	Assistant Professor
46	K G Gopakumar	Assistant Professor
47	Anand Vijaya Narayanan	Assistant Professor
48	Sandeep Vijay P	Assistant Professor
49	Joona P	Assistant Professor
50	Sonali Opneja	Assistant Professor
51	Roopesh Sureshan	Assistant Professor
52	Anoop A	Assistant Professor
53	Nandini Devi R	Assistant Professor
54	Vivek Nair	Assistant Professor
55	Dr. RAVEENA R NAIR	ASSISTANT PROFESSOR
56	Dr.NAMRATHA DIVAKARAN	ASSISTANT PROFESSOR
57	Rohini. T	Professor Cum Principal-Inser
58	Dr Bonny A Joseph	Assistant Professor
59	Dr Abhilash Menon	Assistant Professor
60	Dr Hridya.H	Assistant Professor
61	Dr.Simimohan .J.S	Associate Professor-Inser
62	Binuja.P	Associate Professor-INSeR
63	Dr.Prasanth.P	Assistant Professor
64	Dr.Megha Prem Paramban	Assistant Professor

65	Dr.Suryakala	Assistant Professor
66	Dr.Asish Pavanan	Assistant professor
67	Dr.Arun Krishnan. M. P	Assistant professor
68	Dr Preethi.K.P	Assistant Professor
69	Dr.Dhyana.V	Assistant Professor
70	Dr.Arya Gopi	Assistant Professor

**NON-ACADEMIC STAFF (PERMANENT) STAFF POSITION, AS ON 31.03.2025**

SL.NO	NAME	DESIGNATION
1	C.S.Padmakumar	Pro/Social Investigator
2	Shyni.A.F	Head Nurse
3	Jerry.A	Nursing Assistant
4	Lethiamma.P.R	Nursing Assistant
5	Kalamol.A.B	Nursing Assistant
6	Krishnakumar.K	Ot Technician
7	Reena.P.C	Supervisor Electrical
8	Jayanandan.A	Clerk
9	Rejoy.K	Clerk
10	Bindu.T.K	Clerk
11	Shyni.D.R	Hospital Assitant
12	Mahija.P.M	Hospital Assitant
13	Chandran.K	Supervisor Plumbing
14	Surekha.M.C	Clerk
15	Jayadeep.E.K	Clerk
16	Dineshkumar.T.M	Clerk
17	Prasoonan.P.P	Clerk
18	Pramod.P	Attender
19	Shajith.R.P	Attender
20	Shobitha.L	Nursing Assistant
21	Bindhu.V	Hospital Assitant
22	Reena.K	Hospital Assitant
23	Anupama Achuthan	Hospital Assitant
24	Sreeja.K	Hospital Assitant
25	Bhavanamoukthi	Hospital Assitant
26	Lasitha.K.V	Store Keeper
27	Biju Prasad	Nursing Assistant
28	Reena.K.C	Lab/Pharmacy Asst.
29	Bindhu.K.T	Lab/Pharmacy Asst.
30	Shibu.S	Nursing Assistant
31	Santhoshkumar.K	Lab/Pharmacy Asst.
32	Darly Joseph	Lab/Pharmacy Asst.

33	Sandeepkumar.P	Attender
34	Mary.I.C	Nursing Assistant
35	Agimol Dominic	Nursing Assistant
36	Mercy John	Nursing Assistant
37	Rajeevan.U	Telephone Operator
38	Sabnadev.S.K	Cytotechnologist
39	Sreelatha.T.N	Staff Nurse Gr.1
40	Rajesh.A.K	Admn.Officer
41	Sabitha.K	Staff Nurse Gr.1
42	Sindhu.N.R	Staff Nurse Gr.1
43	Maya.P.K	Staff Nurse Gr.1
44	Sheeja Nellikka	Staff Nurse Gr.Ii
45	Bijitha.P	Staff Nurse Gr.Ii
46	Abhina.S.S	Staff Nurse Gr.Ii
47	Smitha Grace	Staff Nurse Gr.Ii
48	Sindhu.S	Staff Nurse Gr.Ii
49	Shaija.E	Staff Nurse Gr.1
50	Navamy.T.C	Staff Nurse Gr.Ii
51	Sriji Soman	X Ray Technician
52	Mini.K.S	Lab Technician
53	Ligy Jose	Staff Nurse Gr.Ii
54	Seena.E	Staff Nurse Gr.Ii
55	Jisha.K	Staff Nurse Gr.Ii
56	Kavitha.C.N	Staff Nurse Gr.Ii
57	Babu.M	Driver
58	Sabeesh.P	Blood Bank Technician
59	Susanth.P.P	Electrician
60	Bhavina.C	Junior System Analyst
61	Vipin.K	Anaesthesia Technician
62	Sreejith.S	Nursing Assistant
63	Sajeesh.V.M	Blood Bank Technician
64	Remya.V	Hospital Assitant
65	Nidheesh.P.V	Driver
66	Sugandham.S	Asst.Pharmacist
67	Nyju.A.C	Electrician
68	Ratheesh.V.P	Driver
69	Saritha.N	Staff Nurse Gr.Ii
70	Nijeesh.P.T	Radiographer
71	Dhanya.P.M	Nursing Assistant
72	Dhanya.E	Nursing Assistant
73	Rehana.T	Nursing Assistant

74	Shibila.K	Nursing Assistant
75	Rekha Muraleedharan	Nursing Assistant
76	Nisha. T	Nursing Assistant
77	Midhun Gopalakrishnan	Nursing Assistant
78	Neethu.B.S	Nursing Assistant
79	Shamla.N	Nursing Assistant
80	Ragi Sandhya	Nursing Assistant
81	Soumya.V.K	Lab Technician
82	Arun.K.V	Attender
83	Bindhu.K.M	Nursing Assistant
84	Sujith.T	Attender
85	Shibin.C.V	Blood Bank Technician
86	Harish Babu	Assistant Librarian
87	Aneeth.M.V	Speech Therapist
88	Reena.C	Dietician
89	Liji Krishnan	Bio Medical Technician
90	Ranjith.M.K	System Manager
91	Subhash Chandran.A.K	Medical Librarian
92	Nimi.G.K	Cytotechnologist
93	Jayadev.G	Medical Records Officer
94	Shamna.P	Edp Assistant
95	Mayan John	Dialysis Technician
96	Dhanya.V	Radiographer
97	Sajina.N	Staff Nurse Gr.Ii
98	Smithamol.D	Staff Nurse Gr.Ii
99	Sachithra.E	Staff Nurse Gr.Ii
100	Sujatha.K	Staff Nurse Gr.Ii
101	Prajina.E	Staff Nurse Gr.Ii
102	Sheena.C	Staff Nurse Gr.Ii
103	Saritha.K.R	Staff Nurse Gr.Ii
104	Sreeja Kumari.G	Staff Nurse Gr.Ii
105	Sunithakumari.S	Staff Nurse Gr.Ii
106	Ashamol.M.A	Staff Nurse Gr.Ii
107	Roopa.V	Physiotherapist
108	Anuthara.R	Staff Nurse Gr.Ii
109	Jinsithlal.O.N	Plumber
110	Raseed.P	Plumber
111	Shabina Pallipravan	Staff Nurse Gr.Ii
112	Anoop Joy	Blood Bank Technician
113	Jemy Laiju	Staff Nurse Gr.Ii
114	Shiji Paulose	Staff Nurse Gr.Ii

115	Beena.P.K	Radiographer
116	Bindu Raman	Staff Nurse Gr.Ii
117	Sumi.P.R	Staff Nurse Gr.Ii
118	Preethudas	Personal Asst.
119	Harshal. C.H	X Ray Technician
120	Blassy.P	Staff Nurse Gr.Ii
121	Sreejith.P.K	Clerk
122	Ganesan.V	Clerk
123	Sheena.T.P	Radiographer
124	Bindu.T.N	Hospital Assitant
125	Honey Mol.R	Hospital Assitant
126	Athira K Chandran	Staff Nurse Gr.Ii
127	Jeleema M Lawrence	Staff Nurse Gr.Ii
128	Sherjin.A.J	Staff Nurse Gr.Ii
129	Zeenath Battantavida	Nursing Assistant
130	Santhini Chandran	Nursing Assistant
131	Anil Kumar.S	Electrician
132	Sindhu.K.U	Radiographer
133	Shijila.V	Staff Nurse Gr.Ii
134	Sajitha.P	Staff Nurse Gr.Ii
135	Prajina.E.K	Nursing Assistant
136	Jinshi.R.S	Nursing Assistant
137	Sibi K Daniel	Staff Nurse Gr.Ii
138	Jisha.P	Staff Nurse Gr.Ii
139	Asha John.V	Staff Nurse Gr.Ii
140	Sreejisha.P	Staff Nurse Gr.Ii
141	Nirmala Nallachery	Staff Nurse Gr.Ii
142	Surya.C	Nursing Assistant
143	Shiji.P	Staff Nurse Gr.Ii
144	Sumadevi.S	Staff Nurse Gr.Ii
145	Shimna Sebastian	Staff Nurse Gr.Ii
146	Silja Kurian	Staff Nurse Gr.Ii
147	Rajeevan Karayi	Driver
148	Vini Raveendran	X Ray Technician
149	Sabitha.M.V	Pharmacy Assistant
150	Akhila Puthilon Kunnath	Laboratory Assistant
151	Sreeja K V	Laboratory Assistant
152	Arun Kumar E S	Dosimetrist Physics Assistant
153	Ramitha.M.G	Technician Clinical Lab
154	Viju V S	Store Keeper
155	Namtiha P K	Technician Clinical Lab

156	Balukrishnan S R	Ot Technician
157	Aneesh N	Technician Clinical Lab
158	Dhanya Prabha N	Technician Clinical Lab
159	Biji K R	Technician Clinical Lab
160	Nameetha S	Medical Records Attender
161	Thahira D	Blood Bank Technician
162	Sobhith V K	Medical Social Worker
163	Sajitha.P	Assistant Pharmacist
164	Aswini V	Hospital Assitant
165	Sandhya Devi K P	Hospital Assitant
166	Prachith K S	Coding Clerk
167	Sreejesh P P	Ot Technician
168	Mini K P	Clerk/Cashier
169	Anoop V S	Clerk/Cashier
170	Anisha K	Lab Technician
171	Sinsha N P	Technician Clinical Lab
172	Safna Sari K K	Hospital Assitant
173	Subitha S	Cytotechnician
174	Vishnu Raj	Attender
175	Gayathry S S	Technician Radiation Oncology
176	Rasiq	Endoscopy Technician
177	Shijina E	Supervisor Civil
178	Faisal Anchukandan	Technician Radiation Oncology
179	Kavitha Prakash	Nursing Assistant
180	Sajna K K	Nursing Assistant
181	Silna K K	Nursing Assistant
182	Abitha C A	Nursing Assistant
183	Jiji P S	Nursing Assistant
184	Suma S	Nursing Assistant
185	Gladish A	Hospital Assitant
186	Soumya Mathew C M	Staff Nurse Gr.Ii
187	Anjana G N	Staff Nurse Gr.Ii
188	Sajika M J	Staff Nurse Gr.Ii
189	Vijina K	Staff Nurse Gr.Ii
190	Divya C M	Staff Nurse Gr.Ii
191	Ameer Sanchani O	Staff Nurse Gr.Ii
192	Rinsha P K	Staff Nurse Gr.Ii
193	Jithin T P	Staff Nurse Gr.Ii
194	Jayasree Vk	Staff Nurse Gr.Ii
195	Shamseer K	Staff Nurse Gr.Ii
196	Nidhina K P	Staff Nurse Gr.Ii

197	Praseeda K	Staff Nurse Gr.Ii
198	Srijil.A	Staff Nurse Gr.Ii
199	Aiswarya.K.S	Staff Nurse Gr.Ii
200	Vineeth Krishnan	Staff Nurse Gr.Ii
201	Praseetha.M	Staff Nurse Gr.Ii
202	Prasanth C Das	Staff Nurse Gr.Ii
203	Sini Ss	Staff Nurse Gr.Ii
204	Shiniraj R	Staff Nurse Gr.Ii
205	Nimmy Pv	Staff Nurse Gr.Ii
206	Akashsurendran	Staff Nurse Gr.Ii
207	Jibin Kv	Staff Nurse Gr.Ii
208	Sijo Augustine	Staff Nurse Gr.Ii
209	Nimmya Parameswaran	Radiographer
210	Muhammed Nazeem	Radiographer
211	Eana S	Staff Nurse Gr.Ii
212	Anu Anandan Achari	Radiographer
213	Chithira B	Staff Nurse Gr.Ii
214	Jiju Ttv	Purchase Officer
215	Reji Sankar St	Accounts Officer
216	Jolly K J	Staff Nurse Gr.Ii
217	Jincy Xavier	Staff Nurse Gr.Ii
218	Haseenamol Ka	Staff Nurse Gr.Ii
219	Roni Antony	Staff Nurse Gr.Ii
220	Bhavya Kk	Staff Nurse Gr.Ii
221	Manjima T	Staff Nurse Gr.Ii
222	Sabitha Cs	Staff Nurse Gr.Ii
223	Navya Tk	Staff Nurse Gr.Ii
224	Anjana S R	Staff Nurse Gr.Ii
225	Bijesh Mohan	Staff Nurse Gr.Ii
226	Satheesh M	Staff Nurse Gr.Ii
227	Rajalekshmi V	Staff Nurse Gr.Ii
228	Sunera Rajan	Staff Nurse Gr.Ii
229	Sreeja K	Staff Nurse Gr.Ii
230	Sreenivas	Staff Nurse Gr.Ii
231	Shajeena K	Radiographer
232	Srinsi K	Radiographer
233	Praveenkumar P	Radiographer
234	Noufal P	Radiographer
235	Nidhu C D	Radiographer
236	Simimol V	Staff Nurse Gr.Ii
237	Aneesha S	Staff Nurse Gr.Ii

238	Seena Mathew	Staff Nurse Grade Ii
239	Soumya Jose	Staff Nurse Grade Ii
240	Kasthoori S	Staff Nurse Grade Ii
241	Indu P	Nursing Assistant
242	Neena A P	Nursing Assistant
243	Anitha T	Hospital Administrator
244	Jayakrishna Prabhu	Staff Nurse Gr Ii
245	Deepa Mathew	Staff Nurse Gr Ii
246	Deepuraj P	Staff Nurse Gr Ii
247	Sabitha Ms	Staff Nurse Gr Ii
248	Rejitha Mohan	Technician Radiation Oncology
249	Sunoj K Anand	Technician Radiation Oncology
250	Ajith N	Staff Nurse Gr Ii
251	Sabeena Mathew	Staff Nurse Gr Ii
252	Abhilash K K	Staff Nurse Gr Ii
253	Sreehari O P	Technician Clinical Lab
254	Sindhu M	Staff Nurse Gr Ii
255	Shikha Mk	Radiographer
256	Sabina Cv	Radiographer
257	Jitha Joseph	Staff Nurse Gr Ii
258	Sneha V N	Pharmacist
259	Nidheesh K	Assistant Pharmacist
260	Maneesh P	Staff Nurse Gr Ii
261	Preethy U P	Dosimetric Physics Assistant
262	Meera R Nair	Staff Nurse Gr Ii
263	Neha S	Staff Nurse Gr Ii
264	Asha Gopi G S	Staff Nurse Gr Ii
265	Fathimath Suhara P K	Staff Nurse Gr Ii
266	Ansil M	Staff Nurse Gr Ii
267	Naseema P P	Staff Nurse Gr Ii
268	Tessy Jose	Staff Nurse Gr Ii
269	Remya Raveendran	Staff Nurse Gr Ii
270	Manju Mathew	Staff Nurse Gr Ii
271	Reshma V	Nursing Assistant
272	Riya K	Nursing Assistant
273	Ancy M Panicker	Staff Nurse Grade Ii
274	Aswathy Maheswar	Technician Clinical Lab
275	Gireeshma.G.K	Dosimetrist/Physics Assistant
276	Sindhu Rajesh	Nursing Superintendent

## DEPARTMENT OF ENGINEERING & MAINTENANCE

<b>HEAD IN CHARGE</b>	REENA. P.C SUPERVISOR-ELECTRICAL
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### INTRODUCTION

Since its inception, the Engineering and Maintenance Department of MCC (PGIOSR) has served as a vital pillar in the seamless operation of the institution. As the custodian of the hospital's extensive infrastructure, the department shoulders the responsibility of meticulously maintaining critical electro-mechanical systems and advanced medical equipment. Driven by a commitment to excellence, it ensures that all essential facilities function optimally, fostering a safe and conducive environment for patient care and cutting-edge medical research. Throughout the past year, the department has adeptly navigated the complexities posed by ongoing developmental initiatives, consistently upholding uninterrupted service delivery. Through proactive preventive maintenance and swift resolution of technical challenges, it continues to set benchmarks in reliability and safety, reinforcing the institution's unwavering commitment to quality healthcare.

### KEY RESPONSIBILITIES

#### 1. **Operation and Maintenance**

- **Electro-mechanical Installations:** The department oversees the efficient operation and maintenance of critical installations, including the 11 KV Electrical Substation equipped with a 1600 KVA transformer, diesel generators, lifts, telecommunication systems, pump sets, water supply networks, and sanitary installations.
- **Medical Equipment:** Ensures optimal performance and safety of advanced medical devices (MRI, CT, PET, SPECT, DEXA scanners, and radioactive equipment) through Comprehensive Annual Maintenance Contracts (CAMCs), preventive maintenance, and calibration. Supports uninterrupted medical services through prompt maintenance interventions.
- **Building Services:** Maintains hospital buildings, machinery, and equipment to ensure seamless operations.
- **Staff and Contract Management:** The department coordinates departmental staff and engages with various CAMCs to guarantee the continuous operation of critical infrastructure.

#### 2. **Development Activities**

- The department actively contributes to the strategic growth of MCC by offering expert insights and recommending enhancements to ongoing projects to maximize resource efficiency.
- It spearheads a range of building projects, from conceptualization and design to estimation, execution through tenders, supervision, and obtaining statutory approvals.

- Significant involvement in ongoing developmental initiatives, including KIIFB Phase I & II, highlights the department's commitment to the institution's long-term growth.
3. **Infrastructure Maintenance**
    - Contributes to MCC's growth by providing expert guidance on project enhancements and resource optimization.
    - Manages building projects from concept to execution, including design, estimation, tendering, supervision, and regulatory approvals.
    - It facilitates the optimal utilization of existing infrastructure, thereby bolstering the hospital administration's efforts to maintain smooth operations.
  4. **Administrative Liaison**
    - Engages with local authorities (BSNL, KSEB, Electrical Inspectorate, Municipal bodies, Pollution control board, Fire & Rescue department) to secure permits and approvals.
    - Manages insurance processes for hospital assets, including claim management for damages or replacements.
  5. **Future Developments**
    - Identifies land for future expansions and infrastructure improvements.
    - Prepares and submits Detailed Project Reports (DPRs) to facilitate land acquisition and regulatory approvals.

## **DIVISIONS UNDER THE DEPARTMENT**

- **ENGINEERING & MAINTENANCE DIVISION**
- **BIOMEDICAL ENGINEERING DIVISION**

## **MAJOR MILESTONES:**

- **2001:** Establishment of the department and initial setup of electro-mechanical and medical equipment.
- **2002:** Completion of the Blood Bank
- **2003-2008-** Treatment Block
- **2009:** Doctor's Quarters
- **2010:** Nurses Hostel
- **2013:** IP Block
- **2017:** 400 KLD Sewage Treatment plant, Nursing College (INsER)
- **2019:** Lab Block
- **2020:** Nuclear Medicine Block Canteen
- **2021:** General staff quarters
- **2022:** Bystanders Waiting & Resting area
- **2024:** Water treatment plant 400 KLD, 3 T MRI Scan DEXA Scan Gallium Generator
- **2025:** Treatment & Academic Block,

## **ACHIEVEMENTS IN 2024-25**

Throughout the year 2024-25, the Engineering and Maintenance Department demonstrated exceptional competence and efficiency, successfully accomplishing all assigned tasks without any significant disruptions to the hospital's routine operations despite complexities arising from ongoing construction activities across the campus. During the year, the Engineering and Maintenance Department of MCC made significant strides in infrastructure development and maintenance. A total of ₹22.50 crore worth of development works are currently underway at MCC, reflecting the department's proactive approach in advancing the facility's capabilities. Additionally, administrative sanction has been obtained for works amounting to ₹3.5 crore, and

preliminary activities have already commenced. One of the department's key achievements is the successful completion of KIIFB Phase I of the development of MCC as a Post Graduate Institute of Oncology Sciences and Research under KIIFB, amounting to ₹81.69 crore. Furthermore, Phase II of the project, with an estimated cost of ₹562.245 crore, is progressing at MCC. The department has also facilitated the initiation of the construction of the MCC Kitchen, funded by a generous grant of ₹1.5 crore from Hon'ble MLA Ad. AN. Shamseer, Thalassery Constituency, under the ADS scheme.



Treatment & Academic Block (KIIFB-1 Project)  
 Plinth Area- 9012.59 Sq.m  
 Project Cost: Rs 81.69 Cr  
 SPV:BSNL  
 Contracting Agency:CVCC

Total G+3 storied building for Treatment & Academic Block and 34 Nos of OP Room is included in the project for departments.

**Key features of the project include:**

- Class rooms of 25 capacity-10 Nos,
- Physics Lab
- Radiobiology Labs,
- Libraries-4,
- Board rooms-
- Seminar Halls-2,
- PG rooms,
- HOD's rooms,
- Faculty rooms,

- Waiting area for patients,
- RT MRI, RT CT & LINAC
- Separate Toilets for Gents ladies and differently abled.
- Day care Chemotherapy ward accommodating 44 beds with nursing station; total 98 beds capacity in the TA Block
- Deluxe rooms -8 Nos
- Chemo preparation room,  
Nurse room,
- Doctor's room,
- clinical research
- consultation room,
- Computer lab
- Rehabilitation
- Surgical Training Lab,

- The Honorable Chief Minister of Kerala inaugurated the treatment & academic block on January 25, 2025.
- **Renovated Blood bank, Biochemistry Lab & Microbiology Lab under KIIFB:** The Honorable Chief Minister also submitted the following completed projects to the state, marking new milestones in MCC developments:
  - ⇒ MIINT
  - ⇒ RENOVATED BLOOD BANK,BIOCHEMISTRY LAB,MICROBIOLOGY LAB  
PHARMACY ROBOTIC OT, CASUALITY RECEPTION
- Engineering & Maintenance Department created 49 e files in the period

## COMMITTEE MEETINGS

Engineering & Maintenance Department convened the following meetings

### INTERNAL COMMITTEES

SL. NO	COMMITTEE	NO.OFMEETINGS CONDUCTED
1	Energy conservation Monitoring committee	6
2	Facility Management safety Committee	2

### EXTERNAL COMMITTEES

SL. NO	COMMITTEE	NO.OFMEETINGS CONDUCTED
1	Building committee of MCC	1
2	Environment monitoring Cell	2

## STATUS OF CONSTRUCTION

S.No	Name of project	Plinth Area in Sq.m	AS Amount	AS Details	PMC/SPV	Current status	Expected date of completion
1	Nursing College-Phase II	552.00	Rs.2 cr Rs.2 cr Rs.0.15 Cr	Plan <b>2020-21</b> GO (Rt) No: 1703/2021/F&HW D dated 09-08-2021 Plan <b>2021-22</b> GO (Rt) No: 2085/2022/F&HW D dated 23-08-2022 Plan 2021-22 GO (Rt) No: 2085/2022/F&HW D dated 23-08-2022 <b>Total 4.15 Cr,</b>	M/s HITES	Going on	June 2025
2	Nursing College-Phase III	896.50	Rs.2 cr	Received AS	M/s HITES	Yet to tender	
3	Students Hostel [phase-II& III	8337.90	10.78 Cr	GO (Rt) No: 1598/2024/H&FWD dated 03-07-2024	M/s HITES	Work Commenced	
5	Construction of MCC's Kitchen (Canteen Kitchen extension)	324.62	1.5 Cr		Kerala PWD	Work completed	
6	Fire Protection Works in Pediatric Block and Main Hospital	3450.04	0.8 Cr	GO (Rt) No: 1703/2021/F&HWD dated 09-08-2021	M/s HITES	Going on	
7	Truss roofing work	6000	0.2 Cr 3.0 Cr 1.9 Cr	GO (Rt) No: 1703/2021/F&HWD dated 09-08-2021 GO (Rt) No: 2085/2022/F&HWD dated 23-08-2022 GO (Rt) No: 2287/2023/F&HWD dated 09-03-2023	M/s HITES	Going on	
8	Truss roofing work		1.5 Cr		M/s HITES		

9	SITC of 6 Nos lift & connecte d civil and electrical works		2.32 Cr	GO (Rt) No. 1915/2020/H&FWD dated 16-10-2020	Self	Going on	
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### NEW DEVELOPMENTS- CONSTRUCTION INITIATED

Sl. No	Name of project	Plinth area	AS amount	AS Details	PMC /SPV	Current status	Expected date of completion
1	Construction Of Power Laundry Building & Site Of Equipments	1325.42	10.75 Cr	GO (Rt) No. 07/2020/H&FWD dated 01-01-2020 Revision of AS under process	M/s HITES	TS obtained Revised AS Awaiting	
2	Kitchen & Canteen First Floor- Balance works - 23-24	567.8	2.12 Cr	Plan fund 24-25 order awaiting	M/s HITES	Work commenced	
3	Renovation of Stem cell therapy block (BMT & Cord Blood bank	300	0.40 Cr	Plan fund 24-25 order awaiting	M/s HITES	To be tendered	
4	Painting & Maintenance works of Doctors Quarters 2023-24		0.20 Cr	GO (Rt) No: 2287/2023/F&HW D dated 09-03-2023	M/s HITES	To be tendered	
5	Patch work & re-tarring of Campus main road- [gate to hospital]		0.25 Cr	GO (Rt) No: 2287/2023/F&HW D dated 09-03-2023	M/s HITES	To be tendered	
7	Malabar Cancer Centre New Block-KIIFB II	51294.69	406 Cr	GO(Rt) No. 1065/2020/H&FW dated 12-06-2020	M/s Wapcos	Going on	
8	Procurement of all medical equipment & hospital Furniture for Malabar Cancer Centre- Through KMSCL			KIIFB Financial Sanction amount: Order No: HFW002-70/APR-4/2023/KIIFB dated 29-11-2023 KIIFB Financial Sanction amount: 56,80,12,500/- (incl. GST) Rupees Fifty six Crore Eighty lakh twelve thousand five hundred only).		Going on	

9	Guest House	3016.96	23.6 8	No: GO (Rt) No: 1349/2021/H&FW D dated 25-06- 2021.	M/s Wap cos	Under process	
10	Land Acquisition	18 Acres			M/s Wap cos	AS to be obtained	

## STAFF

NON-ACADEMIC STAFF		
SL NO	NAME OF STAFF	DESIGNATION
1	Reena .P.C	Supervisor-Electrical Engineer –In charge ,
2	Chandran .K	Supervisor – Grade –II- Plumbing
3	Liji Krishnan	Supervisor Biomedical
4	Shijina .E	Supervisor Civil
5	Akshay.C.P	Supervisor Civil On contract
6	Susanth .P.P	Electrician
7	Nyju A.C	Electrician
8	Anil Kumar .S	Electrician
9	Rasheed P	Plumber
10	Jinsithlal. O.N	Plumber

## HEALTH INFORMATION TECHNOLOGY DIVISION

IN-CHARGE: RANJITH MK, SYSTEM MANAGER, E-MAIL: sm@mcc.kerala.gov.in

### INTRODUCTION

The Health Information Technology Division, initially established under the Department of Cancer Registry and Epidemiology in 2012, now operates independently under the Director's supervision. As the core of a Digital Hospital, this division aligns with recent technological advancements to provide, manage, and sustain efficient, adaptable, and user-friendly data systems. These systems support Malabar Cancer Centre (Post Graduate Institute of Oncology Sciences and Research) in its pursuit of becoming a center of excellence.

### MAJOR FACILITIES AVAILABLE:

- a) e-Hospital Software, an integrated Hospital Management Information System (HMIS) Software from National Informatics Centre.
- b) eBloodbank Software from National Informatics Centre for managing the Bloodbank.
- c) e-office Software for automating the entire work flow of official file processing and management.
- d) MOCDOC Software for Interfacing of the Laboratory equipments with e-hospital Software and Lab Manager.
- e) Picture Archiving and Communication System (PACS) interfaced with e-Hospital Software.
- f) ePalliative, a web based online Palliative Care and support system for homecare service. The helps the patient to interact with doctors through video conference mode.
- g) A dynamic Official Website with domain www.mcc.kerala.gov.in
- h) Online Examination System for conducting online entrance examinations for the selection examination, for contract/temporary/Trainee/project staff recruitment.
- i) HR and Payroll Management System for HR management, bio-metric attendance management, leave management and for payroll processing.
- j) File Movement Tracking Software for tracking the movement of patient physical file across different divisions and sections.
- k) OPPAM: WhatsApp facility for speedy complaints and grievance management.
- l) IntraMCC Software developed in-house for managing and tracking the certificates requests. The system also provides SMS alert to applicant if the certificate is ready for issuing.
- m) RailC software developed in-house for generating and issuing Railway Concession form for the patients travelling to and back from MCC(PGIOSR).
- n) Bio-medical Asset and Maintenance Management System software for managing all the bio-medical assets, break-down maintenance, Preventive maintenance, Calibration, etc.
- o) Gofrugal, the software for hospital canteen management and billing
- p) IBM SPSS Statistics software for statistical data analysis.
- q) Tally Server (Tally 6.5.5 Multiuser gold version) for Finance & Accounts Management
- r) e-Procurement System of Govt. of Kerala for e-Tender processing.
- s) Official email ID using Govt. of India e-mail service
- t) Centralized Procurement and Rate Contract System software of Govt. of Kerala
- u) Online Birth & Death Registration using software of Information Kerala Mission
- v) GeM: Government e-Market Place of Govt. of India
- w) Fileeazy: Digitized Medical Record Accessing Software
- x) QMajik: Token management System
- y) Digital Patient Education System
- z) Digital Pathology Software System

- aa) AugnitoVoice Recognition/Voice AI software for reporting purpose in Pathology, Nuclear Medicine and Radiology departments.
- bb) Moodle Software for Online Training
- cc) KUHS Remote Digital Evaluation Centre in INSeR
- dd) National Knowledge Network (NKN) Dedicated Internet Connection-100 Mbps
- ee) K-FON Internet Leased Line Connectivity-100Mbps
- ff) BSNL Internet Leased Line Connectivity-100Mbps
- gg) Structured Cat-6 cabling (LAN) with L2 and L3 switches
- hh) High Speed Wi-Fi Connectivity
- ii) CCTV Security Surveillance System
- jj) Public Addressing System
- kk) UTM Firewall and Centralized Anti-Virus facility for Internet Security
- ll) Hardware Infrastructure-Servers, Workstations, Desktops, Laptops, Printers, Scanners, Barcode Printer and Scanner, Digital Camera, Risograph, Thermal Bill Printer, Touch KIOSK, etc.

### **MAJOR ACTIVITIES:**

- a) Administration & Management of e-Hospital Software.
- b) Maintenance and support of e-Office Software.
- c) Updating and maintaining official website of MCC (PGIOSR).
- d) Server and Database Administration, Management and Maintenance
- e) Desktop Computers (450+), Laptop (100+), Printer (150+), Scanner, Projectors, Local Area Network (90+Switches &20+ Racks), Network devices, UTM, etc. Maintenance and support
- f) Maintenance and Management of CCTV Security Surveillance System, PA system & Wi-Fi Connectivity
- g) Managing and administrating of Virtual Tumor Board, Zoom meeting, ePalliative software, OPPAM Whatsapp Group and Social media, Webinars, etc.
- h) Maintenance and Management of online examination System, Online career applications, IntraMCC software.
- i) Managing, Administrating, providing support for e-Procurement Project,Canteen Billing and Management Software, File Tracking System, Online Birth & Death Registration, GeM, HR & Pay Role Management Software, Biometric Punching System and Proximity ID card, Bio-medical Asset Management & Maintenance System, Interfacing Bio chemistry Analyzers, Centralized Procurement and Rate contract System, Official E-mail to all Employees, etc.
- j) Managing National Knowledge Network (NKN), K-FON ILL and BSNL ILL connectivity
- k) Interfacing of all Analyzer in labs with e-hospital Software and Lab Manager Software.
- l) Implementing various IT related Guidelines for operational enhancement.
- m) Conducting ‘Certified Specialist in Health Information Technology’ Course in association with ICT Academy of Kerala.
- n) Implementation of Cancer Care Hospital Information and Management System Software/Electronic Medical Records Software as part of ‘Leading EMR Adoption Program (LEAP)’ Program of National Cancer Grid.

### **NEW DEVELOPMENTS**

- NABH Digital Health Standards-Silver level accreditation (13<sup>th</sup>Sep. 24 to 30<sup>th</sup>Jul. 27).
- NHA Selected ABDM Pilot Project.
- Cancer Care HIMS/EMR Trail running initiated.

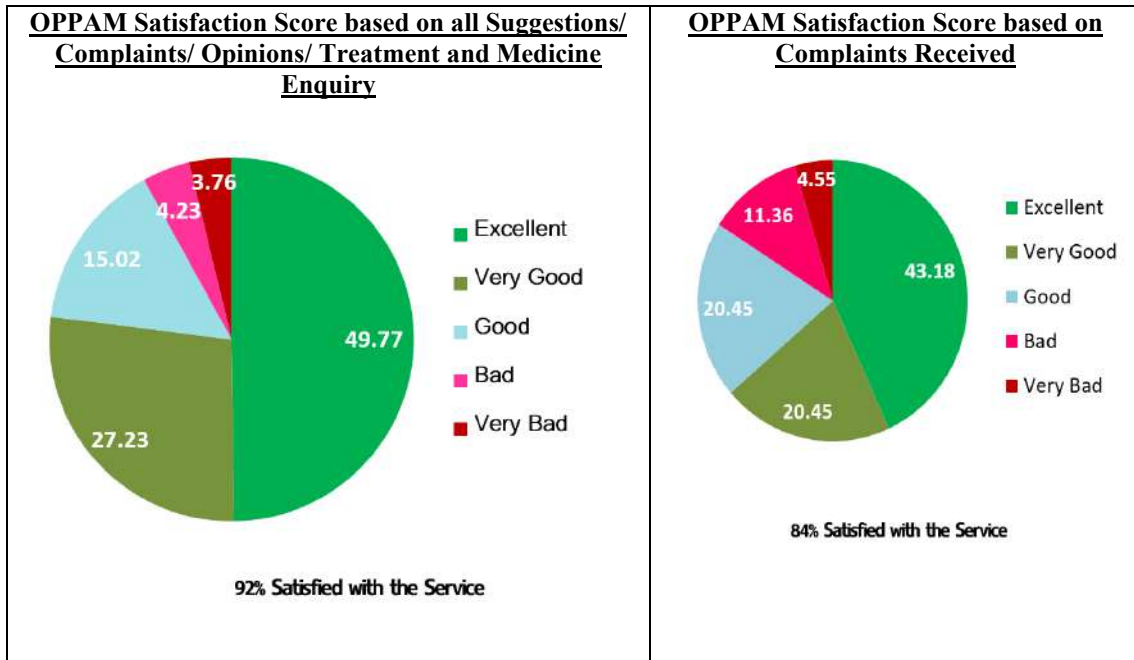
## GUIDELINES/SOP:

- Guidelines for computer users at MCC(PGIOSR) -Ver. 1.5, Feb.2015.
- Guidelines for using official email service of MCC-Ver. 1.0 Aug. 2015.
- Guidelines for using video conferencing-Ver. 1.0 Apr. 2020.
- IT equipment and communication network maintenance plan-Ver. 1.1, Apr. 2021.
- Department Manual-Hospital IT-Issue No. 2, Nov. 2019.
- CCTV security surveillance system monitoring policy-Ver. 1.0, August 2022.
- Guideline for bio-metric punching system &employee ID card-Ver. 1.0, Dec 2016.
- Guidelines for conducting online examinations &interview for the selection of contract/ project/ trainee/ outsourced Staff-Ver.1.0, July, 2021.
- E-Hospital software: User role-based access control guideline, Ver. 1.0, July 2023.
- Information Technology Policy, Version 2.0, Sep. 24
- Cyber Security Policy and Cyber Crisis Management Plan (Draft), Nov.24

## STATISTICS

<b>BIOMETRIC ATTENDANCE SYSTEM: PERCENTAGE OF STAFF COMING LATE</b>		
<b>MONTH &amp; YEAR</b>	<b>PERCENTAGE OF STAFF EXCEEDED 180 MINUTES</b>	<b>NO. OF STAFF EXCEEDS 180 MINUTE LATE</b>
Apr-24	0.402	2
May-24	0.807	4
Jun-24	0.395	3
Jul-24	0.579	3
Aug-24	0.200	1
Sep-24	0.393	2
Oct-24	0.199	1
Nov-24	0.973	5
Dec-24	0.552	3
Jan-25	1.089	6
Feb-25	0	0
Mar-25	1.439	08

<b>OPPAM: Status [OPPAM: a Social media initiative of MCC(PGIOSR) for facilitating patient care, complaints, suggestions and Grievance Management]</b>	
<b>MONTH &amp; YEAR</b>	<b>NO. OF COMPLAINT/ TREATMENT &amp; MEDICINE ENQUIRY RECEIVED</b>
Apr-24	37
May-24	25
Jun-24	23
Jul-24	37
Aug-24	27
Sep-24	46
Oct-24	50
Nov-24	36
Dec-24	34
Jan-25	47
Feb-25	34
Mar-25	39
<b>Total</b>	<b>435</b>



**STAFF**

<b>NON-ACADEMIC STAFF</b>		
<b>SL NO</b>	<b>NAME OF STAFF</b>	<b>DESIGNATION</b>
1	Ranjith. M.K	System Manager
2	Bhavina. C	Junior System Analyst

## RESEARCH & EDUCATION WING

### RESEARCH

Research in Malabar Cancer Centre is conducted as per the ICMR guidelines and an academic research guideline specific for the institution is prepared. As research is a major responsibility of the institution, all efforts are taken to maintain the highest ethical and scientific standards. Malabar Cancer Centre is involved in clinical research in major Oncological disciplines and it emphasizes on interdisciplinary research. The Institutional Review Board is responsible for supervising the scientific and ethical issues associated with any research conducted in the institute. The institute has memoranda of understanding with several governmental organizations so that their expertise can be used in clinical research. In order to ensure that research is conducted under the most stringent conditions the institute has an Institutional Review Board (IRB).

The IRB is made of two separate bodies

1. The Scientific Review Committee (SRC)
2. The Institutional Ethics Committee (IEC)

Both these bodies are constituted as per the guidelines provided by the ICMR for conducting biomedical research

### SCIENTIFIC REVIEW COMMITTEE (SRC)

The SRC meets twice in every month (2<sup>nd</sup> and 4<sup>th</sup> Saturday) and / or as and when required. SRC is responsible for reviewing the scientific merit of any new research proposal. All research proposals have to be submitted by the first week of every month so that it can be reviewed by the SRC. Once studies are approved by the SRC, they are submitted to the IEC for ethical approval. All academic staff are trained in Good clinical practices. It is a mandatory requirement for conducting clinical research in MCC (PGIOSR)

### INSTITUTIONAL REVIEW BOARD –SCIENTIFIC REVIEW COMMITTEE

Sl.No	MEMBERS OF SRC	NAME & DESIGNATION		QUORUM REQUIREMENTS
1	Chairperson	Dr. Satheesan B	Director & Professor	At least Chairperson or one of the Vice Chairperson should present
2	Vice Chairperson	Dr. Sangeetha K Nayanar	Professor	
		Dr. Chandran K Nair	Professor	
		Dr. Geetha M	Professor	

3	Clinician/ Medical Scientist	Surgical Oncology/ Dentistry/ Anesthesiology	Dr. Nizamudheen MP	Additional Professor	At least one member from each Department/ Division should present, preferably on rotation basis	
			Dr. Pramod Sankar	Associate Professor		
			Dr. Adarsh D	Associate Professor		
			Dr. Jashma C	Associate Professor		
		Clinical Hematology & Medical Oncology	Dr. Praveen Kumar Shenoy	Associate Professor		
			Radiation Oncology	Dr. Vinin N.V		Additional Professor
				Dr. Joneetha Jones		Associate Professor
		Dr. Greeshma K E		Associate Professor		
		Clinical Laboratory Services & Translational Research	Dr. Sithara Aravind	Additional Professor		
			Dr. Mohandoss M	Additional Professor		
			Dr. Aswathy Krishnan	Associate Professor		
		4	Basic Scientist	Dr. Parthiban R		Additional Professor
Dr. Sajani Samual	Associate Professor					
Dr. Deepak Roshan	Associate Professor					
5	Statistician	Dr. Ratheesan K	Lecturer	At least one member should present, preferably on rotation basis		
		Dr. Bindu T	Lecturer			
		Ms. Maya Padmanabhan	Lecturer			
		Mr. Riyas M	Lecturer			

### INSTITUTIONAL ETHICS COMMITTEE (IEC)

Institutional Ethics Committee of Malabar Cancer Centre (IEC-MCC) is functioning according to the NDCT Rule 2019 and ICMR guidelines 2017 and it is officially constituted in the year August 2013. The IEC meets once in every three months and / or as and when required. The registration details of IEC as: No.ECR/780/Inst/KL/2015/RR-21. The composition of the committee as follows:

Sl. No	NAME	QUALIFICATION WITH SPECIALIZATION	CURRENT ORGANIZATION	ROLE/DESIGNATION IN ETHICS COMMITTEE
1.	Dr.Srikumar Vasudevan	MBBS, DLO	ENT Surgeon, Josgiri Hospital Thalassery, Kannur, Kerala-67010	Chairman

2.	Dr.Chandni Radhakrishnan	MBBS, MD (General Medicine), PhD (Medicine) PGDMLE	Professor of Medicine & HOD of Emergency Medicine, Government Medical College, Kozhikode, Kerala, 673008	Clinician
3.	Dr.Sangeetha K. Nayanar	MBBS,MD (Pathology), DNB (Pathology)	Professor & Head Department of Clinical service & Translational Research, Malabar Cancer Centre, Kerala, 670103	Member Secretary
4.	Dr.Jeeja M.C	MBBS,MD (Pharmacology) PDCR( Professional Diploma In Clinical Research)	Professor, Department of Pharmacology Govt, Medical College, Kozhikode, Kerala,673008	Medical Scientist
5.	Dr.Biju George	MBBS, MD (community Medicine), PG Diploma in Applied Statistics, PG Diploma in Applied Population Research	Associate Professor , Department of Community Medicine, Govt. Medical College, Kozhikode, Kerala, 673008	Clinician
6.	Dr.Anitha A	MSW, PhD (Social Work)	Assistant Professor & Teacher In Charge, Department of Social Work, Sree Sankaracharya University of Sanskrit, (Kalady) Regional Campus, Payyannur Kannur, Kerala	Social Scientist
7.	Dr. Robin E J	B.A (Philosophy) M.A ( Philosophy) PhD ( Philosophy)	Assistant Professor Department of Philosophy University of Calicut Kozhikode, Kerala, 673635	Social Scientist
8.	Dr.V Ramachandran	MA (Hindi) PhD	President Karunya Charitable Society for Pain & Palliative care, Puducherry Mahe,673310	Lay Person
9.	Adv.D V Narayanan	B.Sc Physics, LLB	11/452 G, Kuriyal Lane, Calicut, 673032	Legal Expert
10.	Adv.M.Jameel Ahmed	B Com, LLB	M K Associates 1 <sup>st</sup> Floor, M K Office, Near L.I.C Road,P.OTalap, Kannur, Kerala,670002	Legal Expert

## SCIENTIFIC ADVISORY COMMITTEE (SAC)

This institution is being developed as Post-graduate institute of Oncology and adopts the state of art tools and techniques of Cancer treatment, research management, viz. research prioritization, research programming and research management information system and education, making India a global leader in the field of Oncology treatment and research. In order to equip and enhancing the quality of cancer research and academic growth of the Institution, Scientific Advisory Committee (SAC) was constituted in 2013 with the permission of Govt of Kerala.

The Scientific Advisory Committee (SAC) headed by a senior scientist of repute from a cancer institution, provides direction to the research activities. The SAC helps the Institution in formulation, appraisal, implementation, monitoring and evaluation of the research projects.

Scientific Advisory Committee will periodically review the training, Research in Oncology, policy related programme, services, academic and research activities of the Malabar Cancer Centre, evaluate, and make recommendations to the Executive Committee and Governing Body of the Malabar Cancer Centre.

NO	NAME	DESIGNATION	POSITION
1.	Prof. Kanjaksha Ghosh	Former Director, National Institute of Immune Hematology, ICMR <a href="mailto:kanjakshaghosh@hotmail.com">kanjakshaghosh@hotmail.com</a> Ph:9892402588	Chairman
2.	Dr. Manoj Murahekar	Director, National Institute of Epidemiology, Chennai <a href="mailto:mmurhekar@gmail.com">mmurhekar@gmail.com</a> Ph:9444414663	Member
3.	Dr. Mohanasankar Sivaprakasam	Director, HTIC, Associate Professor, Department of Electrical Engineering, IIT Madras <a href="mailto:mohan@ee.iitm.ac.in">mohan@ee.iitm.ac.in</a> Ph:8825753648	Member
4.	Dr. B. Venkatraman	Outstanding Scientist & Director, Health, Safety and Environment Group, Indira Gandhi Centre for Atomic Research, Kalpakkam <a href="mailto:mohan@ee.iitm.ac.in">mohan@ee.iitm.ac.in</a> Ph:9443638974	Member
5.	Dr. Moni Kuriakose	Medical Director & CEO, Karkinos Health Care, Kochi, Kerala <a href="mailto:makuriakose@gmail.com">makuriakose@gmail.com</a> Ph:9902776000	Member
6.	Dr. R. Swaminathan	Assistant Director, Professor and Head Department of Epidemiology, Biostatistics and Cancer Registry & Cancer Institute (WIA), Chennai <a href="mailto:r.swaminathan@cancerinstitutewia.org">r.swaminathan@cancerinstitutewia.org</a> Ph:9382197899	Member
7.	Dr. R. M. Pandey	Dr. A. S. Paintal Distinguished Scientist Chair, ICMR Formerly Head, Department of Biostatistics, AIIMS, New Delhi <a href="mailto:rmpandey@yahoo.com">rmpandey@yahoo.com</a> , Ph:9811912117	Member
8.	Dr. Sathees C Raghavan	Professor, Department of Biochemistry, Indian Institute of Science, Bangalore	Member

		<a href="mailto:sathees@iisc.ac.in">sathees@iisc.ac.in</a> Ph:9731017736	
9.	Dr.ManjuSengar	Professor, Department of Medical Oncology, Tata Memorial Hospital, Mumbai <a href="mailto:manju.sengar@gmail.com">manju.sengar@gmail.com</a> Ph:9769690590	Member
10.	Dean, Research	KUHS (Official nomination) <a href="mailto:dean.research@kuhs.ac.in">dean.research@kuhs.ac.in</a> Ph:9495170655	Member
11.	Director	MCC <a href="mailto:director@mcc.kerala.gov.in">director@mcc.kerala.gov.in</a> Ph:9895848300	Convener

### EXTERNAL REVIEW COMMITTEE

External Review committee for reviewing the Intramural Research fund application is constituted in the year 2018. Intramural Research Funds are used to meet both emerging opportunities and urgent needs. These include supporting young/new faculty member(s) in a period of pilot or preliminary investigation that will eventuate in subsequent funding by an external agency, supporting needs of established research programs for which funding may have lapsed temporarily, and allowing the exploration of novel research ideas that may lead to new research directions.

Intra-Mural Research Scheme of Malabar Cancer Centre is designed to encourage research in priority areas based on the requirement of the institution. It also aims to utilize the vast research infrastructure available within the institute.

This scheme is meant for focused outcome in tandem with the needs of the science of Oncology and institution it encourages young scholars and academia, to use their wisdom and energy in the research. The under the IMR scheme, the academic can be submit the application under the grant category of Pilot (Rs.50,000/-), Epidemiology (Rs.1,00,000/-), Clinical Research (Rs.1,00,000/-), Translational Grant (Rs.2,00,000/-) and Bridge (Rs. 1,00,000/). The following members are evaluate the Intra-Mural Research Scheme application.

No.	Name of the Member	Designation
1.	Dr. Joby K Jose	Professor & Registrar Department of Statistical Sciences Kannur University, Mangattuparamba Campus, Kannur University Campus P.O., 670 567
2.	Dr. Balakrishnan Valliyot	Professor of Medicine Head, Centre for Medical Research & Non-communicable diseases, Govt Medical College Kannur Pariyaram, Kerala -670503
3.	Dr. Anu Augustine	Associate Professor School of Life Sciences, Dr. Janakiammal Campus, Thalasserry, Palayad, Kannur-670661

In the year 2024-25 the following studies were considered for grant.

1. Evaluation of histomorphology and immunoprofile with 1p/19q codeletion status in adult diffuse glioma, PI: Dr.Sangeetha K Nayanar, Professor &HoD, Dept of Clinical Lab Services & Translational Research
2. Evaluation of Prognostic Significance of P 53, Ki 67 & Epithelial Mesenchymal Transition Related Markers in Urothelial Carcinoma of Urinary Bladder, PI: Dr.Sithara Arvind, Additional Professor, Dept of Clinical Lab Services & Translational Research

### ONGOING CLINICAL TRIAL:

No	Name of the Trial	Phase	Sponsor	Principal Investigator
1.	A Multicenter, Randomised, Double blind, Parallel, Phase III Global Study to Assess the Efficacy and Safety of BP01 (Bevacizumab) when compared to Avastin®-EU in Combination with Carboplatin and Paclitaxel during Induction phase and Bevacizumab alone during the Maintenance phase in patients with newly diagnosed or recurrent Stage IIIB/IV Non Squamous (ns) Non-Small Cell Lung Cancer	Phase III	Curatq	Dr.Praveen Kumar Shenoy
2.	A Randomized, Open-Label Study of the Efficacy and Safety of Galinpepimut-S (GPS) Maintenance Monotherapy Compared to Investigator's Choice of Best Available Therapy in Subjects with Acute Myeloid Leukemia Who Have Achieved Complete Remission After Second-Line Salvage Therapy	Phase III	PPD Pharmaceuticals India Pvt Ltd	Dr.Chandran K Nair
3.	Adjuvant Radiotherapy in Early Stage Oral Cancers (AREST) – a prospective randomized control trial	Phase III	National Cancer Grid	Dr.Geetha M
4.	ALPelisib India Safety Study (ALPINIST): a phase IV, prospective, multicentre, open-label, non-comparative, interventional study to assess the safety of alpelisib plus fulvestrant, in men and post-menopausal women with HR-positive, HER2-negative, advanced breast cancer (aBC) with a PIK3CA mutation, whose disease has progressed on or after endocrine based treatment	Phase IV	Novartis	Dr.Nandini Devi R
5.	A Prospective, Multicenter, Open-Label, Phase IV, Interventional Study to Assess the Safety and Efficacy of Capmatinib in Indian Patients with Mesenchymal-Epithelial Transition (MET) Exon 14 Skipping Mutation Positive Advanced Non-small Cell Lung Cancer (NSCLC)	Phase IV	Novartis	Dr.Praveen Kumar Shenoy
6.	A Phase 3 Study of CCNU versus CCNU Plus Mebendazole in Glioma	Phase III	Investigator initiated	Dr.Praveen

7.	Randomized study of neoadjuvant systemic therapy in Oral Cavity cancer	Phase III	CRSF	Kumar Shenoy
8.	A Randomized, Open-Label, C5 Inhibitor-Controlled Study To Evaluate The Efficacy And Safety Of Pozelimab And Cemdisiran Combination Therapy In Patients With Paroxysmal Nocturnal Hemoglobinuria Who Are Complement Inhibitor Treatment-Naive Or Have Not Recently Received Complement	Phase III	Regeneration	Dr.Chandran K Nair
9.	The Multicenter, Double-Blind, Randomized, Parallel-group, Phase 3 Study to Compare the Efficacy and Safety of the proposed Biosimilar PERT-IJS and EU-Perjeta® Along with Trastuzumab and Chemotherapy (Carboplatin and Docetaxel) as Neoadjuvant Treatment in Patients with Hormone Receptor Negative (HR-ve) Human Epidermal Growth Factor Receptor 2 (HER2)-positive Early Stage or Locally Advanced Breast study	Phase III	Biocon Biologics UK Ltd	Dr.Praveen Kumar Shenoy
10.	A Phase 2a study of HT-6184 in subjects with IPSS-R Very Low, Low or Intermediate Risk Myelodysplastic Syndrome (MDS) and Symptomatic Anemia	Phase Iia	Haliatherapeutics	Dr.Chandran K Nair
11.	A Prospective Phase III open label Randomized Controlled Trial evaluating the role of Neoadjuvant chemotherapy in mandible preservation in oral cavity cancers	Phase III	NCG	Dr.Anoop Attakil
12.	Phase III Open Labelled Randomized Controlled Study to Evaluate the Optimal Dose of All-Trans Retinoic Acid in the Treatment of Acute Promyelocytic Leukemia	Phase III	NCG	Dr.Chandran K Nair
13.	Upfront surgery followed by adjuvant treatment versus chemoradiotherapy (CCRT) in Head and Neck Squamous cell carcinoma of Unknown Primary with neck node metastasis: A phase III randomized controlled trial. (SCCoUP Trial)	Phase III	NCG	Dr.Sandeep Vijay
14.	Neoadjuvant chemotherapy followed by Surgery versus Surgery followed by adjuvant chemotherapy for resectable Gastric adenocarcinoma - Phase 3-Multicentre Randomized Controlled Trial(NAGA-Trial)	Phase III	NCG	Dr.Nizhamudheen M P
15.	Phase IIb/III study to determine efficacy of Curcumin and Metformin to reduce the incidence of second primary tumors of aerodigestive tract in patients with history of head and neck squamous cell carcinoma	Phase III	NCG	Dr.Satheesan B
16.	Post-operative intraperitoneal chemotherapy after interval cytoreduction in epithelial ovarian cancer (POICE 2024): multicenter, randomized, phase III trial	Phase III	NCG	Dr.Nandini Devi R

**ONGOING& COMPLETED EXTRAMURAL RESEARCH FUND  
PROJECT DURING THE PERIOD OF 2024-25:**

<b>No</b>	<b>Title of the study</b>	<b>Funding agency</b>	<b>PI</b>
1.	Design and implementation health care model in patients with stage 2 breast cancer	Indian Council for Medical Research, Govt of India	Dr.Satheesan B
2.	AI-driven Large-Scale screening for oral and oropharyngeal cancer	Department of Biotechnology, Govt of India	Dr.Satheesan B
3.	Design and development of ultrasonic Transducer probes for medical imaging	R&D in Medical Electronics and Health Informatics Ministry of Electronics & Information Technology (MeitY), Govt of India	Dr.Suraya Kala
4.	To establish a ready network of clinical trial units across the National Cancer Grid to promote multi-centric collaborative research in the field of drug and device development	Biotechnology Industrial Research council(BIRAC), Govt of India	Dr.Satheesan B
5.	Hospital Based Cancer Registries in India	National Centre for Disease Informatics and Research(NCDIR), ICMR	Dr.SainaSunilkumar
6.	A study on patterns of care and survival of head and neck, breast and cervical cancers in India under the Hospital Based Cancer Registries of National Cancer Registry Programme	National Centre for Disease Informatics and Research(NCDIR), ICMR	Dr.SainaSunilkumar
7.	Developing a 3-dimensional (3D) organotypic co-culture system of breast cancer cells with adipocyte and immune cells for drug screening	KSCSTE-Science Research Scheme (SRS)	Dr.Deepak Roshan

**COMPLETED PROJECT:**

NO	TITLE OF THE STUDY	FUNDING AGENCY	PI
1.	Mission Covid Suraksha-Enhancing capacity for conduct of Human clinical trials for COVID-19 Vaccine candidates	Biotechnology Industrial Research council(BIRAC), Govt of India	Dr.Chandran K Nair
2.	Assessment of key immune factors in the pathogenesis of HPV associate oral and oropharyngeal squamous cell carcinoma	Indian Council for Medical Research, Govt of India	Dr.Sangeetha K Nayanar
3.	Deciphering key genetic alternations in oral precancers and cancer as possible therapeutics/Prognostic markers	Indian Council for Medical Research, Govt of India	Dr.DeepakRoshan V G
4.	Clinicopathologic and genetic profile of bilateral breast cancer patients	Kerala State council for Science, Technology and environment, Govt of Kerala	Dr.Sithara Arvind

**PUBLICATION 2024-25**

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## CONFERENCE/CME/TRAINING CONDUCTED

No	Programme Details	Date	Programme
1	Clinical hypnotherapy	13 <sup>th</sup> and 14 <sup>th</sup> July 2024	Workshop
2	Skill training for Residents in Intubation, Central line insertion and Arterial line insertion		Training
3	How to write a concept note for Ideathon	6 <sup>th</sup> July 2024	Workshop
4	Mixed Method Research	2 <sup>nd</sup> November 2024	Workshop
5	Basic Neonatal Resuscitation Policy (BNRP) and Paediatric Basic Life Support (PBLs)	5 <sup>th</sup> December 2024	Workshop
6	Two-day hands-on training for MLSP in early detection of breast, oral, and cervical cancer initiated by DMO Health Kannur	23 <sup>rd</sup> and 24 <sup>th</sup> of January 2025	Training
7	Two-day hands-on training for Nursing Officers in cancer early detection initiated by DMO Health Kannur	30 <sup>th</sup> and 31 <sup>st</sup> of January 2025	Training
8	Early diagnosis of cancer for primary care practitioners: a step towards equitable care	9 <sup>th</sup> February 2025	Training
9	Two-day training for Medical Officers in cancer care initiated by DMO Health Kannur (oral sessions and Hospital tour)	14 <sup>th</sup> and 15 <sup>th</sup> of February 2025	Training
10	Advanced Methods Systematic Reviews & Meta Analysis Workshop (AMSAW)	15-16 Feb 2025	Workshop
11	HACKATHON 2025	15 <sup>th</sup> February, 2025	Workshop
12	Cancer Cervix Screening, Prevention and Management	March 2025	Webinar
13	Climate Change and Cancer & Other Health Disorder in association with Institute for Climate Change Studies, Kottayam	22 and 23 March 2025	CME, Workshop

## CONFERENCE ATTENDED

Sl. No	CONFERENCE ATTENDED
1.	Dr. Anoop A attended conference Endoscopic Endonasal skull Base Workshop Cadaver Dissection at Manipal on 12 <sup>th</sup> April, 2024 as delegate.
2.	Mrs. Reena C, Dietician attended conference New Perspectives in Oncology Nutrition at Bangalore on 20 <sup>th</sup> &21 <sup>st</sup> April, 2024 as faculty with presentation titled Turn Table: Managing Nutrition & cost for long term support – Balancing Blenderised & Supplements.
3.	Dr. Mohandoss M attended conference CME – Current trends & Challenges in Immunohematology at Cancer Institute, Adayar on 16 <sup>th</sup> April, 2024 as faculty with

	presentation titled “Significance of positive DAT test without hemolytic anemia in long term transfusion therapy.”
4.	Dr.Shalini Kurian attended conference Endoscopic Endonasal skull Base surgery Workshop at Manipal on 12 <sup>th</sup> April, 2024 as delegate.
5.	Dr.Sandeep Vijay attended conference Endoscopic Endonasal skull Base surgery Workshop at Manipal on 12 <sup>th</sup> April, 2024 as delegate.
6.	Dr.K G Gopakumar attended conference 6 <sup>th</sup> Emirates Pediatric Hematology & Oncology Conference at Abu Dhabi, UAE on 4 <sup>th</sup> &5 <sup>th</sup> May, 2024 as faculty with presentation titled “Prevalence and parental perspectives on the use of complementary and alternative medicine in children with cancer” IRB NO.1617/IRB-IEC/13/MCC/30-08-2022/1.
7.	Dr.Nizamudheen M P attended conference Manipal Surgical oncology workshop at Manipal on 11 <sup>th</sup> May, 2024 as Faculty.
8.	Mrs.Roopa V, Physiotherapist attended conference Paediatric Rehabilitation Workshop on Motor Developmental Delay-Identification and early Interventions at Kannur on 05 <sup>th</sup> May, 2024 as delegate.
9.	Dr.Adarsh D attended conference Nutrition Conference Oncology nutrition at Bangalore on 20 <sup>th</sup> &21 <sup>st</sup> April, 2024 as faculty with presentation titled Gut Microbioms cancer immune therapy.
10.	Dr.Nandini Devi attended conference NHRP – on Breast cancer survival studies at New Delhi on 01 <sup>st</sup> &2 <sup>nd</sup> April, 2024 as faculty.
11.	Dr.Phinse M Philip attended virtual conference –Defeating HPV together, Uniting for awareness and action organized by UICC on 16.4.24
12.	Dr.Neetu A P attended virtual conference –Defeating HPV together, Uniting for awareness and action organized by UICC on 16.4.24
13.	Dr.Chandran K Nair attended ISBMT – annual meeting at Bangalore on 3.05.2024 to 5.5.2024 as faculty
14.	Mrs.Jisha Abraham attended conference Oncology Conundrums at New Delhi on 17 <sup>th</sup> to 19 <sup>th</sup> May, 2024 as Faculty with presentation titled Symposium (Psycho oncology Sessions) Cancer: The opportunity lost.
15.	Dr.Jithin T K attended conference National Training Project – Practical Pediatric Oncology at Kochi on 15 <sup>th</sup> June, 2024 as faculty with presentation titled “Approach to brain tumours in children” and “Principles of management in pediatric cancers”
16.	Dr.Jithin T K attended conference Kerala PHOCON 2024 – Annual Conference of hemato-oncology chapter of IAP Kerala at IMA House Kochi on 16 <sup>th</sup> June, 2024 as a Panelist for discussion on common scenarios in Pediatric Oncology.
17.	Dr.K G Gopakumar attended conference Kerala PHOCON 2024 – The annual Conference of hemato- Oncology chapter of IAP Kerala at IMA House Kochi on 16 <sup>th</sup> June, 2024 as faculty with talk on ‘The clock is ticking ;Strategies for dealing with oncologic emergencies.’
18.	Dr.Sangeetha K Nayanar attended Research Advisory Committee (RAC) meeting at GMC, Kozhikode on 6 <sup>th</sup> June, 2024 as Co-Chairperson.
19.	Dr.Pramod Sankar S attended QICON-2024 organized by EQIP-NCG at Bangalore on June 21 <sup>st</sup> &22 <sup>nd</sup> 2024 as delegate.
20.	Mrs.Sangeetha U M, Fellow in oncology social work attended conference Mary Richmoud Series -6. Innovations in social work with special focus on social security measures for elderly at BCM College, Kottayam on 25 <sup>th</sup> May, 2024 (one hour–online) as delegate with presentation titled “A study to assess the knowledge

	on Autism spectrum disorders, among the primary and pre-primary teachers in Mangaluru city (PG Thesis)
21.	Dr.Kiran NDNB Resident,attended conference 4 <sup>th</sup> Annual CME Advancing Hematology at Thrissur on 02 <sup>nd</sup> June, 2024 as Delegate with presentation titled“Comparison of outcomes in matched related donor transplants and alternate donor transplants at a tertiary centre in public sector.”
22.	Ms.Neeha Jose, Adhoc Faculty in Psycho oncology attended conference 25 <sup>th</sup> international Psycho oncology Society (IPOS 2024) conference at Maartrichi, Netherlands from 24 <sup>th</sup> to 27 <sup>th</sup> September, 2024 as Delegate with presentation titled ‘Memory, cognitive function & pattern of distress among breasr cancer patients & survivors.’”
23.	Dr.Chandran K Nair attendedconference PEDITALK at Calicut on 26 <sup>th</sup> June, 2024 as Faculty with presentation titled “HSCT in children”.
24.	Mr.Aneeth M V, Speech Therapist attendedconference Head& Neck Cancer – Concepts & Updates at BMH, Calicut on 14 <sup>th</sup> July, 2024 as Faculty with presentation titled 1. “Post Laryngectomy Voice Rehabilitation – Evidence based approaches.” 2. Rehabilitation of Oral Dysphagia Following Head and Neck Cancers.”
25.	Dr.R.Parthiban attended “Conference on Climate change mitigation, adaptation and resilience: A holistic approach” at Mysore on 25 <sup>th</sup> & 26 <sup>th</sup> July2024 as Delegate.
26.	Dr.AswinM, Adhoc faculty, attended conference KOMPAS '24(Kerala Oral & Maxillofacial surgery PG Academic Summit) at KMCT Dental College, Calicut on 14 <sup>th</sup> June 2024 as Faculty with presentation titled “Oral and Maxillofacial oncology.”
27.	Mrs.Reena C, Dietician attended conference ISOMVR CANCON 2024 at MVR Cancer Centre, Kozhikode on 29 <sup>th</sup> August 2024 as Faculty with presentation titled “Nutritional Rehabilitation in Cancer Care.”
28.	Dr.Mohandoss M attended conference National CME of Indian Society of Transfusion Medicine at Thiruvananthapuram on 11 <sup>th</sup> & 12 <sup>th</sup> July, 2024 as Faculty with presentation titled “Production of Virus specific T cells to treat refractory viral infections post BMT.”
29.	Dr.SitharaAravind attended conference ISO MVR CANCON 2024 at Calicut on 30 <sup>th</sup> August to 01 <sup>st</sup> September, 2024 as Delegate with presentation titled “Clinicopathologic and germline mutation profiles of Bilateral Breast Cancer.”
30.	Dr.SaranyaPurushothaman,Adhoc faculty attended conference ISO MVR CANCON 2024 at Calicut on 30 <sup>th</sup> August to 01 <sup>st</sup> September, 2024 as Delegate with presentation titled “Exploring the trends of Multiple Primary Malignancies an institution based study from tertiary cancer centre in North Kerala.”
31.	Dr.SeenaTresaSamual, Senior Resident attended conference ISO MVR CANCON 2024 at Calicut on 30 <sup>th</sup> August to 01 <sup>st</sup> September, 2024 as Delegate with presentation titled “Role of baseline hemoglobin, albumin, lymphocyte and platelet (HALP) score as a novel prognostic marker for patients with DLBCL: A retrospective analysis from a tertiary care centre in South India.”
32.	Ms.Angel Mary John, Former Fellow Oncology Social Work attended conference on National Conference on Real World Evidence in Oncology at Bangalore on 06 <sup>th</sup> July, 2024 as Delegate with presentation titled “Body Image Distress &QoL of old cancer patients before and after surgical treatment.”
33.	Dr.DeepakRoshan attended conference on International Seminar on Scientific Advances and Challenges Against Cancer &Infectious Diseases at West Bengal on 16 <sup>th</sup> July, 2024 as Faculty with presentation titled “Personalized Medicine and Genetics”

34.	Dr.DeepakRoshan attended conference Hands on Workshop Mastering RTqPCR – From Theory to Practice at Kannur on 19 <sup>th</sup> June, 2024 as Faculty.
35.	Mrs.Resmi K Bharathan, Lecturer in Radiation Oncology attended conference on AMPICON 2024 at Hyderabad on 08 <sup>th</sup> to 10 <sup>th</sup> November, 2024 as delegate with presentation titled “Surface dose variation in 6 & 10 mv FF& FFF beam in different clinical set up.”
36.	Mrs.Suja C A, Lecturer in Radiation Oncology attended conference on AMPICON 2024 at Hyderabad on 08 <sup>th</sup> to 10 <sup>th</sup> November, 2024 as delegate with presentation titled “Determination of Inflection point and comparison with profile normalization in treatment planning system.”
37.	Dr.SilpaAjaykumar, Lecturer in Radiation Oncology attended conference on AMPICON 2024 at Hyderabad on 08 <sup>th</sup> to 10 <sup>th</sup> November, 2024 as delegate with presentation titled “Evaluation of CT Simulation parameters affecting image quality and planning in radiotherapy.”
38.	Ms.K P Amrita, PhD Research Scholar, Microbiology Division attended conference 3 <sup>rd</sup> International Conference on Clinical Applied Microbiology (Virtual conference) on 26 <sup>th</sup> & 27 <sup>th</sup> July, 2024 as Delegate
39.	Dr.Nandini Devi R attended conference on 3 <sup>rd</sup> Annual Conference: Real World Evidence at Vydehi Institute, Bangalore on 06 <sup>th</sup> July, 2024 as Delegate with presentation titled “Real World Experience of clinical outcomes & toxicity profile of CT in Advanced EOC in a tertiary cancer centre in South India.”
40.	Dr.Nizamudheen attended conference Rectal Cancer Update RCC Trivandrum at Trivandrum on 10 <sup>th</sup> & 11 <sup>th</sup> August, 2024 as Faculty for panel discussion.
41.	Dr.Nizamudheen attended conference on ISO MVR CANCON at Calicut on 30 <sup>th</sup> August, 2024 as Faculty for panel discussion.
42.	Dr.Praveen Kumar Shenoy attended conference on BEST OF ASCO INDIA 2024 CONFERENCE at Bhuvaneshwar from 28 <sup>th</sup> to 30 <sup>th</sup> June 2024 as Panelist for ASCO Abstracts.
43.	Dr.Praveen Kumar Shenoy attended conference on RWE 2024 at Bangalore on 6 <sup>th</sup> July 2024 as Delegate with presentation titled “Outcome among patients with EGFR mutation in NSCLC from Tertiary cancer centre in Kerala.”
44.	Dr.Praveen Kumar Shenoy attended conference on QICON 2024 at Bangalore on 21 <sup>st</sup> & 22 <sup>nd</sup> June 2024 as Faculty.
45.	Dr.MeghaPremParamban attended conference on Cervical Cancer – Cadaveric Workshop at Bangalore on Day 1 27 <sup>th</sup> July 2024 & Day 2 - 28 <sup>th</sup> July 2024 as Delegate.
46.	Dr.Rohini T attended International Conference on ‘Exploring the boundless horizon of mixed method research: Integrating insights & advancing Health Care’ at Yenepoya Nursing College, Mangalore on 02 <sup>nd</sup> & 03 <sup>rd</sup> August 2024 as Panelist.
47.	Dr.M S Biji attended conference on ISO MVR CANCON 2024 at MVR Cancer Centre, Calicut on 1 <sup>st</sup> September 2024 as Faculty with presentation “Incorporating technology in Palliative care”
48.	Dr.Anoop A attended conference on Head & Neck Cancer: Concepts & Updates at Calicut on 14 <sup>th</sup> July 2024 as Faculty.
49.	Dr.Raveena R Nair attended conference on Head & Neck Cancer: Concepts & Updates at Calicut on 14 <sup>th</sup> July 2024 as Delegate.
50.	Ms.FathimathNaeemaNasreen, Fellow in Psycho oncology attended conference on MVR CANCON 2024 at MVR Cancer Centre, Calicut from 29 <sup>th</sup> August to 1 <sup>st</sup>

	September 2024 as Delegate with presentation titled “Psychological Management of anxiety episode during Radiation Therapy : A case study.”
51.	Ms.Sangeetha U M, Fellow in oncology Social Work attended conference on MVR CANCON 2024 at MVR Cancer Centre, Calicut from 29 <sup>th</sup> August to 1 <sup>st</sup> September 2024 as Delegate with presentation titled “Navigating through the emotional turbulence of loss and grief : A case study.”
52.	Ms.RisanaParvin C P, Dept. of Cancer Registry attended conference on Prof, R N Pillai Memorial National Level Project Competition for M.Sc.Students at Kerala University Campus, Thiruvananthapuram on 28 <sup>th</sup> June 2024 as Delegate with presentation titled “Prediction of Prognostic factors for ovarian cancer survival using parametric regression models and comparison with parametric bootstrap analysis.”
53.	Dr.Sandeep Vijay attended conference on Head & Neck Cancer: Concepts & Updates at Calicut on 14 <sup>th</sup> July 2024 as Chairperson for the talk”Imaging updates of Oral Malignancy.”.
54.	DrSangeethaNayanar attended IAPM Kerala State Chapter meeting organized by MES Medical college at Perunthalmanna on 10 <sup>th</sup> August 2024
55.	Dr.DeepakRoshan V G attended Symposium on AI awareness on Application of in Health care at RCC, Thiruvananthapuram on 19 <sup>th</sup> July 2024 as Faculty.
56.	DrGreeshma, Associate Professor attended conference on MVR CANCON 2024 at MVR Cancer Centre, Calicut on 30 <sup>th</sup> August to 1 <sup>st</sup> September 2024 as Delegate
57.	DrAkhil P Suresh, Assistant Professor attended conference on ICRO-PROADVANCE at RCC Trivandrum on 27 <sup>th</sup> July to 28 <sup>st</sup> July 2024 as Delegate
58.	Dr.Jashma C Associate Professor attended conference SOAPC 2021 Bangalore on Aug 3&4 as delegate with presentation “Utility of Thromboelastography in perioperative Coagulation and its effect on the clinical outcome in patients undergoing major Oncosurgery”
59.	Dr. A S Sano, DNB Resident,attended conferenceKASOCON 2024 at Thiruvananthapuram on 10 <sup>th</sup> and 11 <sup>th</sup> August 2024 as Delegate.
60.	Dr. R Sivakumar, DNB Resident, attended conference KASOCON 2024 at Thiruvananthapuram on 10 <sup>th</sup> and 11th August 2024 as Delegate
61.	Received a request from Dr.SoundaryaSamskruthiKoyya, DM Oncopathology Resident,attended IAPM Kerala Chapter Meeting 2024 at MES Medical College Perinthalmanna, on 10th August 2024 as Delegate
62.	Dr.SoundaryaSamskruthiKoyya, DM Oncopathology Resident,for attended IAPM Kerala Chapter Meeting 2024 at MES Medical College Perinthalmanna, on 10th August 2024 as Delegate
63.	Dr.Sampa Choudhury, DM Oncopathology Resident,attended IAPM Kerala Chapter Meeting 2024 at MES Medical College Perinthalmanna, on 10th August 2024 as Delegate
64.	Dr.Yaazhini, DNB Resident,attendedIAPM Kerala Chapter Meeting 2024 at MES Medical College Perinthalmanna, on 10th August 2024 as Delegate
65.	Dr.Rajesh Krishna P, Assistant Professor Neurosurgery forattendedconference “1 <sup>st</sup> IntraoperativeNeuro-monitoring Course in Neuro Oncology” at Mumbai, on 30 <sup>th</sup> &31 <sup>th</sup> august2024.
66.	Dr.S V Abhiram, DNB Resident attended conference COLORECTAC CANCER UPDATE 2024 at Thiruvananthapuram on 10 August 2024 as Delegate
67.	Dr.Aishwarya N S, DNB Resident, attendedconferenceCOLORECTAC CANCER UPDATE 2024 at Thiruvananthapuram on 10, 11 August 2024 as

	Delegate with poster presentation titled “Clinical outcomes of intersphincteric resection for low rectal cancer”.
68.	Dr.Bonny Joseph, Assistant Professor, attended conference COLORECTAL CANCER UPDATE 2024 at Thiruvananthapuram on 10 <sup>th</sup> and 11 <sup>th</sup> August 2024 as Delegate with video presentation titled “Robotic Anterior Resection with Partial Cystectomy.”
69.	Dr.Chandran K Nair, Professor for attended conference National Hemostasis Update 2024 at Bangalore on 7 <sup>th</sup> and 8 <sup>st</sup> September, 2024 as Delegate
70.	Dr.Chandran K Nair, Professor attended conference MVR CANCON 2024 at Calicut on 30 <sup>th</sup> August, 2024 as faculty with presentation titled “Sequential therapy for relapsed HL”
71.	Dr.K G Gopakumar, Assistant Professor attended conference Aster kids 8 <sup>th</sup> Monsoon CME 2024, at Kochi. on 8 <sup>th</sup> August, 2024 as Panelist for the topic discussion- Pediatric Oncological emergencies
72.	Dr.Sandeep Vijay, Assistant Professor attended conference Head & Neck Complicon 2024, at Bangalore. on 23 <sup>rd</sup> & 24 <sup>th</sup> August, 2024 as Delegate.
73.	Dr.Anoop.A, Assistant Professor attended conference Head & Neck Complicon 2024, at Bangalore. on 23 <sup>rd</sup> & 24 <sup>th</sup> August, 2024 as Delegate
74.	Dr.Shakshi Ganeriwal, Fellow attended conference Head & Neck Complicon 2024, at Bangalore. on 23 <sup>rd</sup> & 24 <sup>th</sup> August, 2024 as Delegate
75.	Dr.Maroti Wadewale Fellow attended conference Head & Neck Complicon 2024, at Bangalore. on 23 <sup>rd</sup> & 24 <sup>th</sup> August, 2024
76.	Dr.Aswin.M, Assistant Professor attended conference Head & Neck Complicon 2024, at Bangalore. on 23 <sup>rd</sup> & 24 <sup>th</sup> August, 2024 as Delegate
77.	Dr.Prem Anand Fellow attended conference Head & Neck Complicon 2024, at Bangalore. on 23 <sup>rd</sup> & 24 <sup>th</sup> August, 2024
78.	Dr.Ashitha.R G Assistant Professor attended conference ISO-MVR CANCON 2024, at Calicut on 29 <sup>th</sup> Aug to 1 <sup>st</sup> sep 2024 as Delegate with poster presentation “Impact of nodal positivity on survival of patients with advanced ovarian cancer undergoing ICS”.
79.	Dr. Adarsh.D, Associate Professor attended conference ISO-MVR CANCON 2024, at Calicut on 29 <sup>th</sup> Aug to 1 <sup>st</sup> sep 2024 as Delegate with poster presentation “Clinical and oncological outcome of pelvic exenteration for gynaecological malignancy in an apex cancer centre” and as a panelist for the topic peritoneal malignancy.
80.	Mrs.Roopaa.V Physiotherapist attended conference ISOMVR CANON 2024, at Calicut on 29 <sup>th</sup> Aug 2024 as Delegate
81.	Dr.Mohandoss. M Additional Professor attended conference 17 <sup>th</sup> Annual Conference- Indian society of Transfusion medicine, at Chennai on 26 <sup>th</sup> to 29 <sup>th</sup> Aug 2024 as Delegate with presentation titled “Count data Modeling: Analysis of Return behavior of platelet donors”
82.	Dr.Vinin N V, Additional Professor attended conference AROICON 2024 at Mangalore on 28 <sup>th</sup> November to 1 <sup>st</sup> December 2024 as Delegate with presentation titled “Clinical outcome of Patients with Nasopharyngeal carcinoma treated with Definitive Radiotherapy”
83.	Dr.Greeshma K E, Associate Professor attended conference AROICON 2024 at Mangalore on 28 <sup>th</sup> November to 1 <sup>st</sup> December 2024 as Delegate with presentation titled “Analysis of radiation dose received by heart in patient with (L) sided breast cancer receiving adjuvant”.

84.	Dr.Nabeel Yahiya, Assistant Professor attended conference MRITHYUNJAYA (National Seminar) in Online mode on 16 <sup>th</sup> August 2024 as faculty with presentation titled "Introduction to Oncology".
85.	Dr.Nabeel Yahiya, Assistant Professor attended conference ISO MVR CANCER 2024 at Kozhikode on 30 <sup>th</sup> August to 1 <sup>st</sup> September 2024 as delegate with presentation titled "Outcome in Small cell lung cancer patient treated with chemotherapy".
86.	Dr.Joneetha Jones, Associate Professor attended conference AROICON 2024 at Mangalore on 28 <sup>th</sup> November to 1 <sup>st</sup> December 2024 as Delegate with presentation titled "90 day mortality post radical radiotherapy in head & neck cancers".
87.	Dr.Geetha M, Professor attended conference MVR CANCER 2024 at Kozhikode on 30 <sup>th</sup> August to 31 <sup>st</sup> August 2024 as faculty (Chairperson for the talk Pelvic Oncology - Redeeming Gynecological Recurrences)
88.	Dr.Arun P Narendran, Assistant Professor attended conference AROICON 2024 at Mangalore on 28 <sup>th</sup> November to 1 <sup>st</sup> December 2024 as Delegate with poster presentation titled "Clinical outcome of carcinoma breast with sub-centimetric internal mammary node".
89.	Dr. R Sivakumar, DrNB Resident attended conference Head & Neck Complicon 2024, at Bangalore. on 23 <sup>rd</sup> & 24 <sup>th</sup> August, 2024 as Delegate
90.	Dr.Chandran K Nair attended conference on ESSENCE of EHA 2024 at Mumbai on 27 <sup>th</sup> to 29 <sup>th</sup> September, 2024 as Faculty with presentation titled "BvECADDVs Esc. BEACOPP in advanced Hodgkins lymphoma."
91.	Dr. Nizamudheen M P attended conference on IASO NATCON 2024 at Bangalore on 26 <sup>th</sup> to 29 <sup>th</sup> September, 2024 as Faculty as Panelist.
92.	Dr Alex Xavier Chakiath. DrNB Resident, attended conference. NATCON-2024, at Bangalore on 26 <sup>th</sup> to 29 <sup>th</sup> September 2024 as Delegate. Presenting Paper: "Outcome of multiorgan resection as a part of cytoreductive surgery in advanced ovarian cancer".
93.	Dr.Preethi S Philip attended conference on National Hemophilia Update AHAP - AP at Bangalore from 06 <sup>th</sup> to 08 <sup>th</sup> September 2024 as delegate with POSTER presentation titled "Prolonged Coagulation Profile in patients with malignancy – case series."
94.	Dr. Aishwarya N S attended conference on NATCON at Bangalore from 26 <sup>th</sup> to 29 <sup>th</sup> September 2024 as delegate with presentation titled "Clinical experience with tensor fascia lata free auto graft for reconstruction in oncological surgeries at a Tertiary cancer centre in South India. ."
95.	Anjana G N attended conference 3 <sup>rd</sup> National Pediatric oncology Nursing conference at Mumbai from 23 <sup>rd</sup> to 24 <sup>th</sup> September, 2024 as delegate with POSTER presentation title "Knowledge and practice of hand hygiene among primary caregivers of children with cancer."
96.	Sajika M J attended conference 3 <sup>rd</sup> National Pediatric oncology Nursing conference at Mumbai. from 23 <sup>rd</sup> to 24 <sup>th</sup> September 2024 as delegate.
97.	Dr.Anu Mariyam Ninan, Assistant Professor, attended conference PNEUMOCON SILVER 2024 at Kochi from 4 <sup>th</sup> - 6 <sup>th</sup> October 2024 as faculty.
98.	Dr.Harish Babu, Librarian, INSeR attended "National Conference- Connecting Users to Library Resource through Innovative Technologies" at Coimbatore on 4 <sup>th</sup> & 5 <sup>th</sup> October 2024 as delegate with oral presentation "Ethics of librarianship in the era of Artificial Intelligence"
99.	DrShalini Kurian, Head & Neck Resident, attended National conference. FHNO-2024, at Mumbai from 17 <sup>th</sup> to 20 <sup>th</sup> October 2024 as Delegate with poster presentation titled "Investigating the Impact of Imaging in Detecting Thyroid Gland Invasion for Laryngectomy Patients: A Retrospective Analysis".

100.	DrShakshiGaneriwal, Head & Neck Resident, attended National conference.FHNO-2024,at Mumbai from 17 <sup>th</sup> to 20 <sup>th</sup> October 2024 as Delegate with poster presentation titled “Linguoalveolar sulcus depth and tongue volume predicting speech outcomes in early oral cancer”.
101.	DrPremAanand, FNB, Head & Neck Resident, attended National conference.FHNO-2024,at Mumbai from 17 <sup>th</sup> to 20 <sup>th</sup> October 2024 as Delegate with poster presentation titled “IMPACT OF RE WIDE EXCISION AFTER UNPLANNED EXCISION BIOPSY IN EARLY ORAL TONGUE CANCER”.
102.	DrIndu S, FNB, Head & Neck Resident, attended National conference.FHNO-2024,at Mumbai from 17 <sup>th</sup> to 20 <sup>th</sup> October 2024 as Delegate with poster presentation titled “Psycho-Social Well-being of Differentiated Thyroid Cancer Survivors: A Cross-sectional Study”.
103.	DrMarotiWadewale, Head & Neck Resident, attended conference.FHNO-2024,at Mumbai on 17 <sup>th</sup> to 20 <sup>th</sup> October 2024 as Delegate. Presenting Poster: “Does risk stratification of Extranodal Extension into N2a and N3b hold relevance?”
104.	Dr.KrishnapriyaV,Assistant Professor(Adhoc) attended the preconference workshop on Head&NeckOncopathology master class-through the digital lens on 17 <sup>th</sup> October 2024 in online mode.
105.	Dr.SangeethaNayanar, Professor attended National conference FHNO 2024 at Mumbai from 17 <sup>th</sup> to 20 <sup>th</sup> October 2024 as Faculty with presentation on CUPS-Pathologist perspective.
106.	Dr.Ashitha R G,Assistant Professor for attended AOGIN-India 2024 at JIPMER(Pondicherry) on 4 <sup>th</sup> & 5 <sup>th</sup> October 2024 as delegate with poster presentation titled “Survival outcome of carcinoma vagina patients treated at a tertiary cancer centre”.
107.	Dr.Bonny A Joseph, attended conference on IASO NATCON 2024 at Bangalore on 26 <sup>th</sup> to29 <sup>th</sup> September, 2024 as delegate with presentation titled 1. “Survival outcome following radical cystectomy in muscle invasive bladder cancer with and without neoadjuvant chemotherapy (paper) and “Impact of Nodal status on survival outcomes in carcinoma penis” – e-poster.
108.	Dr.Prasanth attended conference on IASO NATCON 2024 at Bangalore on 26 <sup>th</sup> to29 <sup>th</sup> September, 2024 as delegate with presentation titled 1. “Feasibility and outcomes of salvage therapy for recurrence in colorectal cancer patients followed up with a low intensity regime.”(poster)
109.	Dr.Chandran K Nair attended conference on ASH Annual Meeting at Sandiego, USA on 07 <sup>th</sup> to10 <sup>th</sup> December, 2024 as delegate.
110.	Dr.Chandran K Nair for attended conference on HCC Annual Meeting at Delhi on 18 <sup>th</sup> to19 <sup>th</sup> October, 2024 as Faculty.
111.	Dr.Aswin M attended conference on AOMSI State Conference at Kottayam on 18 <sup>th</sup> to20 <sup>th</sup> October, 2024 as Faculty – as Panelist on the topic “Surgical Oncology – Evolving paradigms and exceling outcomes”.
112.	Dr.Anoop A attended conference on FHNO 2024 at Mumbai on 17 <sup>th</sup> to20 <sup>th</sup> October, 2024 as Delegate for preconference anterior skull base cadaveric dissection workshop.
113.	Dr.Mohandoss M for attended conference on Hematocon 2024 at Nagpur on 07 <sup>th</sup> to10 <sup>th</sup> November, 2024 as Faculty with presentation titled 1.Technical considerations in stem cell apheresis. 2.Stem cell sources, collection & preservation and Assessment of the cost & apheresis time associated with mobilization for lymphoma patients undergoing autologous stem cell transplantation.

114.	Mrs.Reena C, Dietitian attended conference on PEPTA QUEST at GOA on 13 <sup>th</sup> October, 2024 as Delegate.
115.	Dr.AnjuRadhakrishnaKurup attended conference on TRANSCON 2024 at Ahmedabad on 21 <sup>st</sup> to 23 <sup>rd</sup> November, 2024 as Delegate with presentation titled “Impact of low mean corpuscular volume of RBC on stem cell leukapheresis outcomes.”
116.	Dr.Sivakumar, attended conference on NATCON 2024 at Bangalore on 26 <sup>th</sup> to29 <sup>th</sup> September, 2024 as delegate with presentation titled “Compliance to surveillance protocol in surgically treated oral cancer patients.”(poster)
117.	Dr.Adarsh D, attended conference on IASO NATCON 2024 at Bangalore on 26 <sup>th</sup> to29 <sup>th</sup> September, 2024 as Faculty(panelist) Topic-advanced ovarian malignancy
118.	Dr.A S Sano attendedconference on NATCON 2024 at Bangalore on 26th to29th September, 2024 as delegate with presentation titled “Incidence & factors affecting LAR syndrome after rectal cancer surgery”.
119.	Dr.Jithin T K attendedconference 2nd Quality Improvement Conference “QICON 2024” workshop for classic QI team at St.Johns Hospital, Bangalore on 18th to 20th October, 2024 as Faculty.
120.	Mr.Aneeth M V, Speech Therapist attended conference on FHNO 2024 (Pre – conference) at ACTREC, Kharghar, Navi Mumbai on 17th October, 2024 as delegate with presentation titled Pre-conference – chemo radiation related dysphagia intervention, pre-habilitation to rehabilitation in Head & Neck cancer.”.
121.	Dr.Raveena R Nair attended conference on FHNO 2024 at Mumbai on 17th to 20th October, 2024 (pre conference workshop included) as delegate with presentation titled “Bestheda system underestimating malignancy risks in thyroid cancer experience at a tertiary cancer centre.”
122.	Mrs.Reena C, Dietitian attended conference on Diabetes Dialogues 2024 at Providence Hospital, Trivandrum on 26th October, 2024 as Faculty with presentation titled “Oncology Nutrition ”
123.	Dr.Saravanan M attended conference on IEDC SUMMIT 2024/NODAL OFFICER MEET at NIT, Calicut on 18th & 19th October, 2024 as Delegate.
124.	Dr.VipinGopinath attended conference on IEDC SUMMIT 2024/NODAL OFFICER MEET at NIT, Calicut on 18th & 19th October, 2024 as Nodal Officer.
125.	Dr.Adarsh D, attended conference on AOGIN 2024 at Pondicherry on 03rd to05th October, 2024 as Faculty.
126.	Dr.Praveen Kumar Shenoy V P, attended conference on QICON 2024 at St.John’s, Bangalore on 18thto 20th October, 2024 as Faculty with presentation titled “Key Drivers & Interventions.”
127.	Mr.Ashin Krishna C, MSc Medical Statistics (project student) attended conference on 42nd Annual Conference of the Indian Society for Medical Statistics (ISMS) at Varanasi on 21st to 23rd November, 2024 as Delegate with paper presentation titled “Prediction of Prognostic Factors for Breast Cancer Survival Using Cox PH Model and Comparison with Machine Learning Techniques.”
128.	Dr.Akhil P Suresh attended conference on AROICON 2024 at Mangalore on 28th November to 01st December, 2024 as Delegate.
129.	Dr.Nabeel Yahiya E K attended conference on AROICON 2024 at Mangalore on 28th November to 01st December, 2024 as Delegate with poster presentation titled “Survival Analysis of Carcinoma Esophagus patients treated with Palliative Radiotherapy.”
130.	Dr.Akhil P Suresh attended conference on Malabar Oncology Club at Thalassery on 20th November, 2024 as Faculty with presentation titled “Plaque Brachytherapy in Ocular Malignancies.”

131.	Dr.Geethafor attended onlineconference ONCOHABITARE - 24 at MCC on 25 <sup>th</sup> &26 <sup>th</sup> October, 2024 as Faculty with presentation titled “Overview on radiation therapy in breast cancer management.”
132.	Dr.Rohini T attended online conference ONCOHABITARE 2024 at MCC on 25 <sup>th</sup> & 26 <sup>th</sup> October 2024 as Delegate .
133.	Mrs. Maneeja S S, Lecturer, INSeR attended online conference ONCOHABITARE 2024 at MCC on 25 <sup>th</sup> & 26 <sup>th</sup> October 2024 as Delegate .
134.	Dr.Nandini Devi R attended conference ONCO-HABITARE ‘24 at MCC (Online meeting) on 25 <sup>th</sup> & 26 <sup>th</sup> October 2024 (6.00pm to 8.30pm) as Faculty with presentation titled “Role of Medical Oncologist in the treatment of Breast Cancer.”
135.	Dr.AbhilashMenon attended the Indian cooperative oncology network conference -2024 at Mumbai from29 <sup>th</sup> November to01 <sup>st</sup> December, 2024 as delegate with presentation (Oral) titled “Effectiveness and toxicity profile of reduced dose Sorafenib for the treatment of HCC : A retrospective, single Institutional experience.”
136.	Dr.Hridya H attended the conference on ISOO 2024 – Biennial conference of International Society of Ocular Oncology at Goa from03 <sup>rd</sup> to 07 <sup>th</sup> December 2024 as delegate with presentationtitled “Combined topical &intralesional interferon Alpha 2b therapy for ocular surface squamous neoplasia: A case series.”
137.	Dr.Nandini Devi R attendedconference ONCOTALK 2024 at Kozhikode on 17 <sup>th</sup> November 2024 as Faculty with presentation titled “Overall survival with Pembrolizumab in Early Stage TNBC
138.	Dr.AswinMullath, Assistant Professor (Adhoc) attendedconference 48 <sup>th</sup> National Annual AOMSI at Kolkata from12 <sup>th</sup> to 14 <sup>th</sup> December 2024 as Faculty – Chairperson & Moderator for the talk Advanced Buccal Mucosa cancer
139.	Dr.Shoaib Nawaz P Nattendedconference AMPOK YEC DEC.2024 at Kochi on 14 <sup>th</sup> & 15 <sup>th</sup> December 2024 as Delegate.
140.	Dr.Shoaib Nawaz P Nfor a talk on “Systemic Treatment in Prostate Cancer- from hormones to targeted therapy” at Malabar Onco club on 22nd October 2024.
141.	Dr.Adarsh Dattendedconference on AGOICON 2024 at Kochi on 7 <sup>th</sup> & 8 <sup>th</sup> December 2024 as Delegate with oral presentation “Secondary cytoreduction in Recurrent carcinoma ovary-survival outcome amd complications”.
142.	Dr.Sreeja Battendedconference on AGOICON 2024 at Kochi from 6 <sup>th</sup> to 8 <sup>th</sup> December 2024 as Delegate with oral presentation titled “Demographic and Prognostic variables clear cell carcinoma.”
143.	Dr.Nila S Pradeep attendedconference on AGOICON 2024 at Kochi from 6 <sup>th</sup> to 8 <sup>th</sup> December 2024 as Delegate with oral presentation titled “A retrospective study to assess the impact of tumor site on lymph node metastasis and survival outcome in patients who underwent curative intent treatment for carcinoma endometrium.”
144.	Dr.Rachana Pattendedconference on AGOICON 2024 at Kochi on 6 <sup>th</sup> to 8 <sup>th</sup> December 2024 as Delegate with poster presentation titled “EmbryonalRhabdomyosarcomaof cervix :A rare disease in reproductive age group.”
145.	Dr.Ashitha R G attended conference on AGOICON 2024 at Kochi on 7 <sup>th</sup> & 8 <sup>th</sup> December 2024 as Delegate with poster presentation titled “Survival outcome of patients with vulvar malignancy treated at a tertiary care cancer centre.”
146.	Dr.Jashma C attended conference on ISACON PATNA 2024 from 20 <sup>th</sup> to 24 <sup>th</sup> November 2024 as Delegate with oral presentation titled “A retrospective observational study on the effect of intraperitoneal temperature during HIPEC and post-operative morbidity.

147.	Dr.MeghaPremParamban attended conference on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate.
148.	Ms. Maria P Chacko (Fellow in Oncology Social Work)attended conference on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate.
149.	Ms. Amritha Jacob (Fellow in Psycho-Oncology) attended conference on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate.
150.	Ms. FathimaShahma (Fellow in Psycho-Oncology)attended conference on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate.
151.	Dr.M.S.Biji attended conference on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate.
152.	Dr.SimiMohan,AssocProf,INSeR, attended conference on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate.
153.	Dr.Binuja,Assoc prof, INSeR, attended conference on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate.
154.	Mrs.Vinsha M, Lecturer ,INSeR, attended conference on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate
155.	Dr.Arun P Narendran attendedAROICON 44 <sup>th</sup> Conference at Mangalore from 28 <sup>th</sup> November to 1 <sup>st</sup> December 2024 as Delegate with poster presentation titled “Clinical outcome of carcinoma breast with subcentimetric internal mammary node.
156.	Ms. Sangeetha U M (Former Fellow in Oncology Social Work) attended the Asia Pacific Psycho-oncology Network Meeting (APPON 7) at Chennai organized by the Cancer Institute (WIA), Chennai and Psycho-oncology Society of India (POSI) on 17th and 18th January 2025 as a Delegate with oral presentation titled-“Concerns in Breast Cancer Survivors with respect to Sexual Function, Sexual Satisfaction, and Distress: A Sequential Explanatory Study”.
157.	Ms. FathimathNaeemaNasreen (Former Fellow in Psycho-oncology) attended the Asia Pacific Psycho-oncology Network Meeting (APPON 7) at Chennai, organized by the Cancer Institute (WIA), Chennai and Psycho-oncology Society of India (POSI) on 17th and 18th January 2025 as a Delegate with the oral presentation titled “Effectiveness of Psychosocial Intervention on Distress, Body Image Satisfaction and Quality of Life among Colorectal Cancer Patients: An Intervention Study”
158.	Dr.Adarsh D attendedGESTICON National conferenceat Kochi from 23 <sup>rd</sup> &24 <sup>th</sup> November 2024 as Faculty with presentation titled “Malignancy in pregnancy”.
159.	Dr.Chandran K Nair attend the 1 <sup>st</sup> Annual CME on Haematology and stem cell transplantation at CMC Vellore on 23rd November 2024 as a Delegate.
160.	Dr Praveen Kumar Shenoy attended Cancer Institute CME for exam going postgraduates (COPE CME) at Chennai on 16.11.2024 as faculty.
161.	Ms.Aryasree K.T attendedCANQUER 2024 at Kochi on 7.11.2024 & 8.11.2024 as a Delegate.
162.	Mr Mohammed Raseem P. B.C attendedCANQUER 2024 at Kochi on 7.11.2024 & 8.11.2024 as a Delegate.
163.	Dr.VipinGopinath attended Conference Value added course on Bridging Biotech Research & Industry at Calicut University on 26 <sup>th</sup> November 2024 as Faculty with presentation titled “Precosion cancer care : Real world application to Molecular Biology.”
164.	Dr.Sampa Choudhury, DM Oncopathology Resident, attendedAPCON 2024 Annual Conference at Cuttack, Odisha from11 <sup>th</sup> to15 <sup>th</sup> December, 2024 as delegate with presentation titled “Clinico pathological characterization and survival

	outcome of primary neuroendocrine neoplasms across female genital system: A ten year retrospective study”.
165.	Dr.Preethi S Philip, DrNB Resident, CHMOG attended conference BMT MASTERCARE at Mumbai from 20 <sup>th</sup> to 22 <sup>nd</sup> December 2024 as delegate with presentation titled “Case of SOS (Sinusoidal Obstruction Syndrome) likely drug induced.”
166.	Dr.DeepakRoshan V G attended conference National Winter School for Women in AI/ML and computational Biology 2024 at Putaparthi - SSSIHL on 07 <sup>th</sup> December, 2024 as Faculty with presentation titled “Role of computational Biology in interpreting Genome Data Clinically.”
167.	Dr.PramodSankar S attended conference 55 Kerala State Dental Conference 2024 & pre –conference at Alappuzha from 26 <sup>th</sup> to 28 <sup>th</sup> December 2024 as delegate.
168.	Mrs. Maria Puthumana Chacko, Fellow in Oncology Social Work attended conference Asia Pacific Psycho-Oncology Network Meeting (APPON-7) at Chennai on 17 <sup>th</sup> & 18 <sup>th</sup> January 2025 as Delegate with presentation titled “Assessing the quality of life of parents living with cancer and understanding parental perception of their children’s wellbeing with special reference to Wandoor, Malappuram district, Kerala.”
169.	Mrs. Neeha Jose, Adhoc Faculty in Psycho-oncology attended conference on Asia Pacific Psycho-Oncology Network Meeting (APPON-7) at Chennai on 17 <sup>th</sup> & 18 <sup>th</sup> January 2025 as Delegate with presentation titled “Familial & social concerns of a long term gynaecological cancer survivor : A case study.”
170.	Dr.NandiniDevi R attended conference AGOICON 31 <sup>st</sup> Annual Conference of AGOI at Kochi from 6 <sup>th</sup> to 8 <sup>th</sup> December 2024 as Faculty with talk “ Looking beyond immunotherapy :ADC’S in Gynaecologic oncology”.
171.	Dr.M S Biji attended online conference Amrita Annual Review in Palliative Medicine (AARPM) workshop at Kochi on 16 <sup>th</sup> November 2024 as Delegate.
172.	Mrs.Reena C, Dietician attended conference AIG Hospital’s International Nutrition Conference at Hyderabad on 8 <sup>th</sup> & 9 <sup>th</sup> January 2025 as Faculty with presentation titled “Personalised nutrition in cancer care.”
173.	Ms.Anju P P, Assistant Professor, INSeR attended State Conference on “Transforming Nursing Trends, leadership and Impact of AI” at BMH Kannur on 7 <sup>th</sup> December 2024 as Delegate
174.	Mrs.Linju T K, Lecturer, INSeR attended State Conference on “Transforming Nursing Trends, leadership and Impact of AI” at BMH Kannur on 7 <sup>th</sup> December 2024 as Delegate.
175.	Ms.Rinjuna K P, Lecturer, INSeR attended SNA state level competition from Ernakulam from 28 <sup>th</sup> to 30 <sup>th</sup> November 2024
176.	Mrs.Jisha Abraham attended conference on Asia Pacific Psycho-Oncology Network Meeting (APPON) at Chennai on 17 <sup>th</sup> & 18 <sup>th</sup> January 2025 as Delegate with presentation titled : 1 “Insomnia & Distress Among patients admitted for surgery at a tertiary cancer centre.” 2.”Integrating bio feedback with progressive muscle relaxation for the management of psychological symptoms in oncology care A single case study.” Also Moderating the symposium Gynaecological cancer survivorship: The life continues.” 4.Faculty for the session “Integrity solution focused approach in cancer care.”

177.	Mrs.Reena C, Dietician attended conference on ICNC-2025 at Varanasi from 20 <sup>th</sup> to 23 <sup>rd</sup> February 2025 as Faculty with paper presentation titled “Impact of early nutritional intervention in patients with cancer.”
178.	Dr.SoundaryaSamskruthiKoyya, DM Oncopathology Resident attended conference on APCON 20 24 at Cuttack, Orissa from 11 <sup>th</sup> to 15 <sup>th</sup> December, 2024 as Delegate with presentation titled “Prevalence and evaluation of clinic-pathological variables of ultralow Her2 expression in breast cancer patients, an initial experience from a tertiary cancer centre in Kerala.”
179.	Dr.Chandran K Nair attended Annual Conference Mumbai Hemat Group at Mumbai from 24 <sup>th</sup> to 26 <sup>th</sup> January 2025 as Faculty with presentation titled “Treatment of primary CNS Lymphoma.”
180.	Dr.AnandVijaya Narayanan, Asst.Professor attended conference on MRD (Measurable Residual Disease) in Acute Leukemia and Myeloma at CMC, Vellore from 17 <sup>th</sup> to 19 <sup>th</sup> January 2025.
181.	Dr.Mohandoss M, Addl..Professor, Transfusion Medicine attended conference on MRD in Acute Leukemia and Myeloma at CMC, Vellore from 17 <sup>th</sup> to 19 <sup>th</sup> January 2025 as Delegate.
182.	Dr.R.Parthiban, Addl Professor, Microbiology attended National Conference on “Neoteric advancement in Bioscience & Infectious Diseases” at Salem on 21 <sup>st</sup> & 22 <sup>nd</sup> January, 2025 as Faculty with presentation titled “Emerging technologies and their potential impact on the future of microbiology laboratories.”
183.	Dr.Arun Krishnan M P attended Year End Conference 2024 at Kochi as Delegate on 14 <sup>th</sup> and 15 <sup>th</sup> Dec 2024.
184.	Dr Indu V P attended COMPLICON - Shri Sankara Cancer Hospital & Research Centre , Bangalore as Delegate on 24 <sup>th</sup> & 25 <sup>th</sup> January 2025
185.	Dr Shalini Kurian attended Head & Neck COMPLICON- Shri Sankara Cancer Hospital & Research Centre , Bangalore as Delegate on 24 <sup>th</sup> & 25 <sup>th</sup> January 2025
186.	Dr Divya S attended Head & Neck COMPLICON Part 2 Thyroid, Parathyroid and Salivary gland- ShriSankara cancer Hospital and Research Centre Bangalore as Delegate on 24 <sup>th</sup> & 25 <sup>th</sup> January 2025
187.	Dr Abhilash Menon attended Indian Myeloma Congress at Kolkata as Faculty and presented Time to autologous stem cell Transplant in Multiple Myeloma: A real world from a Tertiary Cancer Centre in Rural India on 10 <sup>th</sup> to 12 <sup>th</sup> Jan.2025
188.	Dr Praveen Kumar attended ICGC - 2025 at Mumbai as Delegate on 20 <sup>th</sup> to 23 <sup>rd</sup> Feb.2025
189.	Dr Rohini T attended Capacity Building of National Consortium PhD Guides at Bangalore as Delegate and presented Capacity Building of National Consortium PhD Guides on 20 <sup>th</sup> & 21 <sup>st</sup>
190.	Dr Sahla K attended Indo-US Flowcytometry CME and workshop on Flow cytometry and its application in Biological Sciences and clinical Disgnostics at SCTIMST, Thiruvananthapuram as Delegate on 11 <sup>th</sup> to 13 <sup>th</sup> Feb.2025
191.	Dr Mohamed Safar O P attended Indo-US Flowcytometry CME and workshop on Flow cytometry and its application in Biological Sciences and clinical Disgnostics at SCTIMST, Thiruvananthapuram as delegate on 11 <sup>th</sup> to 13 <sup>th</sup> Feb.2025
192.	Dr R.Parthiban attended Biotechnology Association.Inauguration Biotech Department at Chinmaya College, Kannur as Faculty on 9 <sup>th</sup> January, 2025

193.	Dr Mohandoss M attended ISBTI Kerala Chapter Annual State Conference at Thrissur and presented Moderator for Panel Discussion as Faculty on 16th February, 2025
194.	Dr Mohandoss M attended TransCendence - 1st Annual CME on Transplant Immunology at Medical Trust Ernakulam and presented Chairperson as Faculty on 23rd February, 2025
195.	Dr Prasanth attended Nutritional Conference, MCC and presented Techniques & Guidelines of Nutritional feeding in Oncology Patients as Faculty on 18th Jan 2025
196.	Dr Saravanan M attended International Conference on Emerging & Re-emerging Infection Diseases at Chennai as Delegate on 17& 18 Feb 2025
197.	Dr Sangeetha K Nayanar attended KSOMP - 2025 AT Calicut and presented Revised Classification of soft Tissue Tumour as Faculty on 8 & 9Feb 2025
198.	Dr Sobhith VK attended 7th Indian Cancer Genetics Conference & Workshop as Delegate on 20 - 23 Feb 2025
199.	Dr Kandathil Joseph Philip attended Advances in Oncopathology of Breast Tumors (ADOPT) at TMC Kolkata and presented as Poster on 21-22 Feb 2025
200.	Dr Geetha M attended 8th AROI-ESTRO Teaching course in Gynaecological Cancer at KGMU, Lucknow as Delegate on 6-9 Feb 2025
201.	Dr Arun P Narendran attended Indian Cancer Genetic Conference 2025 at TMH Mumbai as Poster on 20-23 Feb 2025
202.	Dr Chandran K Nair attended Mumbai Hematolog Group Essence of ASH 2024 and presented Management of CNS Lymphoma as Faculty on 24-26 Jan 2025
203.	Dr NikhilMohan Attended Head & Neck COMPLICON Part 2 Thyroid, Parathyroid and Salivary gland- Shri Sankara Cancer Hospital & Research Centre , Bangalore and presented RAI related Complications as Faculty on 24-25 Jan 2025
204.	Dr.AbhilashMenon,attended ONCON 2025 at MCC and presented Enhancing Cancer Therapy/Success: Nutrition for /Treatment Toxicity (for information) as Faculty on 19th Jan 2025.
205.	Dr.SaranyaPurushothaman, attended 26th Indo - US flow Cytometry workshop - 2025 at Trivandrum as delegate on 11& 12 Feb.2025.
206.	Dr.Adarsh D, attended AKCOG 2025 AT Trivandrum and presented Video presentation Retroperitoneal Lycoph as Faculty on 7 - 9 Feb. 2025.
207.	Ms.Dr. K P Amrita,attended Advanced Methods in systematic reviews and meta-analysis workshop at MCC as delegate on 15 & 16 Feb 2025
208.	Shibin C Vattended ISBTI Kerala Chapter Annual State Conference at Thrissur as delegate on 16th Feb 2025
209.	Sabeesh.P Attended ISBTI Kerala Chapter Annual State Conference at Thrissur, as delegate on 16th Feb 2025.
210.	Dr.Nandini Devi R CHMOG attended ICMR - NHRP - BCSS Workshop at ICMR Headquarters as Faculty on 27th & 28th Feb.2025
211.	Dr.Nandini Devi R CHMOG attended Site Visit for quality check of data of BCSS Project at Adayar, Chennai as Faculty on 05th Feb.2025
212.	Dr.SitharaAravind CLS & TR attended37th Kerala Science Congress at Thrissuras Faculty on 9th Feb.2025
213.	Dr.Parthiban R attended National Conference on Applied Biotechnological & Biosciences intervention in New Age Translational Therapeuticis and presented B-Calano Blood Culture Positive System as delegate on 21 & 22 Feb 2025

214.	Dr.Nizamudheen MP attended MASOCON 2025, Manipal academy of health education, Manipal and presented Moderating session on VATS Esophagectomy as Faculty on 20-22 Feb 2025
215.	Dr.Rohini T attended Advanced Methods in Systematic Reviews and Meta-Analysis as delegate on 15-16 Feb 2025
216.	Dr.Linju TK attended Advanced Methods in Systematic Reviews and Meta-Analysis as delegate on 15-16 Feb 2025
217.	Dr.Kavya A attended MPAICON 2025, CMC Vellore and presented Evaluating the molecular alterations in acute lymphoblastic leukemia cases reported in tertiary care centre as delegate on 13-15 Feb 2025
218.	Dr.Parthiban R attended Panelist and Judge at the International Conference on Emerging and Re-emerging Infectious Diseases (iCER-ID 2025), scheduled for February 17th and 18th, 2025, at the Vigyan Auditorium, CSIR Complex, Ta37ramani, Chennai. as Faculty on 17-18 Feb 2025
219.	Dr. S38indhu ER attended Advanced Methods in Systematic Reviews and Meta-Analysis as delegate on 15-16 Feb 2025
220.	Dr.Akhil P Suresh attended Advanced Methods in Systematic Reviews and Meta-Analysis as delegate on 15-16 Feb 2025
221.	Dr.Joneetha Jones attended World Cancer Day Meeting IMA-AMS (Virtual) and presented Panel Discussion on Cancer Diagnosis and Treatment - Ethical Challenges and Solutions as Faculty on 04-02-2025
222.	Dr.Sruthi P attended Advanced Methods in Systematic Reviews and Meta-Analysis as delegate on 15-16 Feb 2025
223.	Dr.Vinsha M attended Advanced Methods in Systematic Reviews and Meta-Analysis as delegate on 15-16 Feb 2025
224.	Dr.Anju PP attended Advanced Methods in Systematic Reviews and Meta-Analysis as delegate on 15-16 Feb 2025
225.	Dr.VipinGopinath attended Cannovation 3.0 fuelling innovation in Malabar , KSUM and presented Introducing MIINT as Faculty on 24 Feb 2025
226.	Dr.VipinGopinath attended National Symposium on Frontiers in Life Sciences, Innovations and Perspectives, MES MK MackerPillay College for Advanced Studies, Ernakulam and presented Personalized Cancer Care: Integrating genomics, imaging and Multidisciplinary Science for Precision Therapy and Future innovations as Faculty on 28-02-2025
227.	Dr. Deepak Roshan attended Cannovation 3.0 fuelling innovation in Malabar , KSUM and presented Introducing MIINT in MedTech as Faculty on 25 Feb 2025
228.	Dr.Chandran K Nair attended Advanced Methods in Systematic Reviews and Meta-Analysis as delegate on 15-16 Feb 2025
229.	Dr.M S Biji attended MEDTECH HACKATHON at MCC and presented Pneumatic Compression Device as Delegate on 15th feb.2025
230.	Dr.Rohini T attended Qualitative Research- Govt Medical College, Kannur and presented Qualitative Research Design, Phenomenology as Faculty on 20 March 2025
231.	Dr.Hridya H attended Asia Pacific Academy of Ophthalmology + All India Ophthalmic and presented Instruction Course- "Genetics of Ocular Tumors - Current & Future Perspective" as Faculty on 03-04 April 2025
232.	Dr.Chandran K Nair attended CART cell therapy national conclave organised by Medical trust hospital Kochi, and presented Patient selection for CART cell therapy as Faculty on 06-04-2025

233.	Dr.Chandran K Nair attended CART summit 2025 , organised by TMH Mumbai and presented panel discussion on "Challenges and solutions in Public health for CART cell therapy as Faculty on 12 & 13 April 2025
234.	Dr.Chandran K Nair attended KEM alumni Meeting and presented CART cell therapy, experience sharing as Faculty on 12-04-2025
235.	Dr.Geetha M attended Gynaecological Brachytherapy Workshop - Indian Brachytherapy Society, GKNM Hospital Coimbatore as Delegate on 05-06 April 2025
236.	Dr.Geetha M attended Webinar - Gynaecological Malignancies INSER and presented An overview of Radiation Therapy in Cervical Cancer as Faculty on 20-03-2025
237.	Dr.Megha Prem attended Gynaecological Brachytherapy Workshop - Indian Brachytherapy Society, GKNM Hospital Coimbatore as Delegate on 05-06 April 2025

### TRAINING/WORKSHOP ATTENDED

TRAINING/WORKSHOP ATTENDED	
1.	Dr.Hridya H attended online training- AAZPIRE 2024 Workshop on clinical research methods and protocol development from 25 <sup>th</sup> to 28 <sup>th</sup> April 2024
2.	Dr.Sajani Samuel, attended online training- Medical Laboratory System and Internal Audit as per ISO15189:2022 from 24 <sup>th</sup> to 26 <sup>th</sup> April 2024 .
3.	Dr.Anu Mariyam Ninan attended online training- AAZPIRE 2024 Workshop on clinical research methods and protocol development from 25 <sup>th</sup> to 28 <sup>th</sup> April 2024 (9 am to 4pm)
4.	Dr.Jithin T K attended online training- St.Jude Global Retinoblastoma Program (duration - 12 weeks)
5.	Dr.Akhil P Suresh attended training- Retinoblastoma 2024 online training organized by St.Jude Global from 8 <sup>th</sup> April, 2024 to 6 <sup>th</sup> July 2024
6.	Dr.Akhil P Suresh attended training- AROI – ESTRO Head & Neck Teaching course at Chennai on 6 <sup>th</sup> to 8 <sup>th</sup> June 2024.
7.	Mrs. Sajika M J, Staff Nurse attended online training- Retinoblastoma 2024 organized by St.Jude Global
8.	Dr.Neethu A P attended CanScreen 5 (Asian training) organized by IARC, WHO (hybrid training) from June 2024 to October 2024 and workshop at Bali, Indonesia from 7 <sup>th</sup> to 10 <sup>th</sup> October 2024.
9.	Mrs.Biji K R, Lab Technician attend training- Observorship training at Adayar Cancer Institute, Chennai from 20 <sup>th</sup> to 27 <sup>th</sup> May 2024.
10.	Dr.Bonny A Joseph attended Robotic training wet lab at Bangalore on 27 <sup>th</sup> May, 2024 as Delegate
11.	Ms .K P Amrita, PhD Scholar, Microbiology attended class on Research and Publication Ethics at Kannur on 08 <sup>th</sup> July 2024.
12.	Mr.Prem Kumar Shenoy V P, PhD Scholar, Genetics Division attended class on Research and Publication Ethics at Kannur on 08 <sup>th</sup> July 2024.
13.	Ms.Amrita Jacob, Psycho oncology Fellow attended training on MOCA Assessment
14.	Ms.Sangeetha U M, Fellow in Oncology Social Work attended training on MOCA Certification course
15.	Ms.Fathimath Naema Nasreen, Psycho oncology Fellow for attended training on MOCA Certification course
16.	Dr.Binuja P, Associate Professor, InSER attended workshop on Clinical Hypnotherapy

	at MCC on 13 <sup>th</sup> & 14 <sup>th</sup> July 2024
17.	Dr.Bindu T attended National Workshop on Clinical Epidemiology at Kannur University, Kannur from 29 <sup>th</sup> to 31 <sup>st</sup> July 2024
18.	Ms.NimiG .K,Cytotechnologist attended Hands on Workshop on leukemia / lymphoma immunophenotyping and hematopoietic stem cell enumeration at CMC Vellore , from 1st to 3 <sup>rd</sup> August 2024
19.	Dr.AnandVijayaNarayanan attended hands on Workshop on Acute Leukemia Measureable resident Disease by Flowcytometry organized by Department of hematology Sri Ganga Ram hospital on 03.08.2024 inonline mode
20.	Dr.Simi Mohan, Associate Professor attendedworkshop – International Workshop on mixed method research at Kollam on 22 July 2024
21.	Priyanka J, Student in flow cytometry certificate Course attendedworkshopon Basis of flow cytometry on 22 to 24 August 2024.
22.	Mrs.Maneeja S S, Lecturer ,INSeR attendedSSGP training program organized by KUHS at Thrissur on 22 August 2024.
23.	Mrs.Thahira D, Blood Bank Technicianattendedtraining, South Zone Regional Lab Technician Training Programme at Thiruvananthapuram from03 <sup>rd</sup> to 05 <sup>th</sup> September 2024.
24.	Dr.RohiniT,PrincipalINSeR attended training on Skill Lab Training Workshop at KUHS, Thrissur from 02 <sup>nd</sup> to 04 <sup>th</sup> September 2024.
25.	Dr.SheejaNellik attended Workshop COMET Workshop at Calicut on 28th September 2024 as faculty.
26.	Dr.Akhil P Suresh,Assistant Professor attended FHNO Preconference Workshop on 17th October 2024.
27.	Dr.AnandVijayaNarayana,Assistant Professor attended16th Annual TCS conference and workshop on MRD at NaviMumbaifrom 17th to 20th October 2024
28.	Ms.Tittu Sebastian, Assistant Lecturer, INSeR attended one day training programme for NSS Programme Officer at Kannur on 14 <sup>th</sup> October, 2024
29.	Dr.Nizamudheen M P attended Robotic wet lab training at Amritha, Kochi on 24 <sup>th</sup> September, 2024
30.	Dr.Prasanth attendedRobotic training at Amritha, Kochi on 24 <sup>th</sup> September, 2024
31.	Mrs. Neenu Pradeep T K, Lecturerr, INSeR attended examination duty (3 <sup>rd</sup> year BSc (N) supplementary examination – September 2024) at Ottappalam, Palakkad on 8 <sup>th</sup> October, 2024 as an External Examiner.
32.	Dr.Ashitha R G attendedRobotic training at Amritha, Kochi on 28 <sup>th</sup> September, 2024
33.	Dr.AdarshDharmarajan attendedRobotic training at Bangalore on 22 <sup>nd</sup> & 23 <sup>rd</sup> October 2024.
34.	Ms.Neeha Jose, Adhoc Faculty, Psycho-oncology attended training - Online Intensive Training on Solution Focused Brief Therapy of Counselling.on 02 <sup>nd</sup> November, to 09 <sup>th</sup> November 2024.
35.	Dr.Bindu T attended workshopon National level faculty development programme on advanced statistical techniques for academic excellence in data analytics department of statistics and data science.at Christ University, Bangalore from 22 <sup>nd</sup> to 28 <sup>th</sup> October 2024(7 days).
36.	Dr.Ratheesan attended workshop on statistical analysis using excel & SPSS at Sir Syed College, Taliparamba on 28 <sup>th</sup> October 2024
37.	Dr.Bindu T attended a training National Workshop on Python Programming with Machine Learning & Artificial Intelligence at Thiruvananthapuram from 18 <sup>th</sup> to 22 <sup>nd</sup> November 2024.
38.	Dr.SitharaAravind attended workshop on Qualitative Research at MCC on 23 <sup>rd</sup>

	November 2024 as Delegate.
39.	Dr.SitharaAravind attended workshop on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024 as Delegate.
40.	Dr.Rohini T, Professor cum Principal, INSeRfor attended training on Skill lab training workshop for faculty of Nursing College at KUHS on 17 <sup>th</sup> to 18 <sup>th</sup> December 2024
41.	Dr.Sindhu, AssistantProfessor,CLSTR attended online training “Improving Quality of Diagnostics &clinical laboratory confirmations” organized by St.jude Global Laboratory Quality Management systems.
42.	Dr.DeepakRoshan, AssociateProfessor,CLSTR attended online training “Improving Quality of Diagnostics &clinical laboratory confirmations” organized by St.jude Global Laboratory Quality Management systems.
43.	Dr.SangeethaNayanar , Professor, CLSTR attended online training “Improving Quality of Diagnostics &clinical laboratory confirmations” organized by St.jude Global Laboratory Quality Management systems.
44.	Dr.Rohini T, Professor cum Principal, INSeR attended training on Skill lab training Program(Phase II – Batch III) at KUHS, Thrissur on 17 <sup>th</sup> to 18 <sup>th</sup> December 2024
45.	Dr.M.S.Biji attended workshop on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024
46.	Dr.SitharaAravind of attended workshop on Qualitative Research at MCC on 23 <sup>rd</sup> November 2024
47.	Dr. Adarsh D attendedRobotic Training Programme, Bangalore on 29 <sup>th</sup> March 2025
48.	Ms.Aiswarya N V attended ICMR Training Workshop - HBCR & PBCR on 06 <sup>th</sup> to 11 <sup>th</sup> Jan 2025
49.	Dr.Akhil P Suresh attended 2nd Hands on workshop on total marrow lymphoid irradiation at CMC Vellore on 21st & 22nd March 2025
50.	Ms.AswathyMaheswar attendedWHONET and Lab Training Workshop for KARS NET at GMC, Thiruvananthapuram on 27th & 28th Feb.2025
51.	Ms.Athira M attended ICMR Training Workshop - HBCR & PBCR on 06 <sup>th</sup> to 11 <sup>th</sup> Jan 2025
52.	Dr.Bindhu T attended National Workshop on Python Programming with Machine Learning & Artificial Intelligence at Thiruvananthapuram from 18th to 22nd November 2024.
53.	Dr.Deepak Roshan attended Workshop for fostering student Innovations & Entrepreneurship in North Malabar Colleges at Kannur on 22 <sup>nd</sup> March 2025
54.	Dr.Deepak Roshan attended online training “Improving Quality of Diagnostics &clinical laboratory confirmations” organized by St.jude Global Laboratory Quality
55.	Dr.Greeshma K E attended 2nd Hands on workshop on total marrow lymphoid irradiation at CMC Vellore on 21st & 22nd March 2025
56.	Mrs.Jisha Abraham attended Geriatric Oncology workshop online on 8 <sup>th</sup> February 2025
57.	Ms.K P Amrita attended Microbes to Molecules (Hands - on Training Programme on Microbial Natural Product - Drug Discovery) at Sathyabhama Institute of Science and Technology at Chennai on 25th - 29th March 2025
58.	Mrs.Lisha Jose attended 2nd Hands on workshop on total marrow lymphoid irradiation at CMC Vellore on 21st & 22nd March 2025
59.	Dr.Nikhil Mohan attended Shaping Kerala's Future: International Conclave on Next Gen Higher education at South Kalamassery, Kochi on 13th to 15th Jan.2025
60.	Dr.Ratheesan K attended Session for Biostatistics, CREDO 2025 at Lonavala on 08 <sup>th</sup> and 9 <sup>th</sup> March 2025
61.	Mr.Riyas M attended Session for Biostatistics, CREDO 2025 at Lonavala on 08 <sup>th</sup> and 9 <sup>th</sup> March 2025

62.	Dr.Rohini T attended training on Skill lab training workshop for faculty of Nursing College at KUHS on 7th to 18th December 2024
63.	Dr.Saravanan M attended Workshop for fostering student Innovations & Entrepreneurship in North Malabar Colleges at Kannur on 22nd March 2025
64.	Dr.Sangeetha K Nayanarattended online training “Improving Quality of Diagnostics &clinical laboratory confirmations” organized by St.jude Global Laboratory Quality
65.	Dr.Shamna Mohammed attended workshop on Lympho venous amastomosis at Mumbai on 21st to 23rd Jan 2025
66.	Ms.ShanaShahabana attended ICMR Training Workshop - HBCR & PBCR on 06 <sup>th</sup> to 11 <sup>th</sup> Jan 2025
67.	Mr.Shibin Mathew attended ICMR Training Workshop - HBCR & PBCR on 06 <sup>th</sup> to 11 <sup>th</sup> Jan 2025
68.	Dr.Sindhu E R attended workshop on Risk Management requirements &Implimentation in laboratories Management systems on 24th Feb.2025
69.	Dr.Sindhu E R attended online training “Improving Quality of Diagnostics &clinical laboratory confirmations” organized by St.jude Global Laboratory Quality
70.	Dr. Sithara Aravind attended Break the silence - work with dignity - ICC & POSH - 2013 - 1day training programme at Trivandrum on 22nd Feb.2025
71.	Dr.Sithara Aravind attended Qualitative Research workshop at MCC on 23rd November 2024
72.	Dr.Vipin Gopinath attended Shaping Kerala's Future: International Conclave on Next Gen Higher education at South Kalamasseryon 13th to 15th Jan.2025
73.	Dr.Vipin Gopinath attended Workshop for fostering student Innovations & Entrepreneurship in North Malabar Colleges at Kannur on 22 <sup>nd</sup> March 2025

## AWARDS ND ACHIEVEMENT

1. Dr.Greeshma K.E received first prize in poster presentation “Analysis of radiation dose received by heart in patients with left sided breast cancer receiving adjuvant radiotherapy” at AROICON 2024 held at Mangaluru from 29/11/24 to 01/12/24.
2. Dr.Abhilashmenon received 2nd prize in oral presentation”Effectiveness and toxicity profile of reduced dose sorafenib for the treatment of HCC:A retrospective single Institutional experience at ICON 2024 held at Mumbai from 29/11/24 to 01/12/24.
3. Dr.SampaChoudhury,DMOncopathology Resident received 1st prize in quiz competition (Grossing techniques of oncosurgeryspecimens)at APCON 2024 held at Cuttack from 11th to 15th December 2024.
4. Dr.Soundarya Samskruthi Koyya,DMOncopathology Resident received 2nd prize in quiz competition (Grossing techniques of oncosurgeryspecimens)at APCON 2024 held at Cuttack from 11th to 15th December 2024.
5. Dr.Hridya received a travel grant award of \$500 at the biennial conference of ISOO
6. Mrs. Jisha Abhraham, Lecturer, Psycho-Oncology received Best Poster Award at Asia Pacific Psycho Oncology Network (APPON) 7 on 18-01-2025 at Westin Velachery, Chennai

## ACCOUNTS & AUDIT REPORT-FY 2024-25

MALABAR CANCER CENTRE SOCIETY Post Graduate Institute of Oncology Sciences and Research (MCC-PGIOSR)

THALASSERY, KANNUR

(Amount in Rs.)

CONSOLIDATED BALANCE SHEET AS AT 31ST MARCH 2025

	PARTICULARS	Note No.	31-Mar-25	31-Mar-24
I	<b>OWNERS' FUNDS &amp; LIABILITIES</b>			
1	<b>Trust Funds</b>			
a	Capital Fund	3	3,38,56,52,799.25	2,65,59,40,461.95
b	Reserves & Surplus	4	(1,18,49,02,245.74)	(1,29,25,55,001.10)
	<b>Restricted Funds</b>			
c	Grant in Aid- Capital Grant (Excess Utilised / Pending Utilisation)	5	(29,53,21,252.03)	5,54,69,223.87
d	Funds & Schemes	6	11,71,99,791.08	8,78,04,971.38
			2,02,26,29,092.56	1,50,66,59,656.10
2	<b>Non Current Liabilities</b>			
a	Other long term liabilities	7	14,68,58,557.14	7,45,71,824.32
			14,68,58,557.14	7,45,71,824.32
3	<b>Current Liabilities</b>			
a	Trade Payables	8	26,05,21,550.95	25,90,04,317.74
b	Other current liabilities	9	2,86,96,379.86	1,06,29,913.70
c	Short term Provisions	10	3,80,48,728.00	2,41,17,378.00
			32,72,66,658.81	29,37,51,609.44
	<b>TOTAL</b>		2,49,67,54,308.51	1,87,49,83,089.86
II	<b>ASSETS</b>			
1	<b>Non - Current Assets</b>			
a	Property , Plant & Equipment and Intangible assets	11	1,36,48,59,682.65	1,17,99,28,705.35
i	Property , Plant & Equipment			
ii	Intangible assets		10,40,920.00	13,74,866.00
iii	Capital Work In Progress		6,79,34,539.00	7,71,31,848.00
b	Other non - current assets	12	56,65,637.00	55,56,076.00
			1,43,95,00,778.65	1,26,39,91,495.35
2	<b>Current assets</b>			
a	Inventories	13	9,29,26,710.11	10,39,24,736.01
b	Trade Receivables	14	47,86,02,397.40	28,67,10,737.59
c	Cash and bank balances	15	18,01,83,702.73	21,02,01,346.55
d	Other Current Assets	16	30,55,40,719.62	1,01,54,774.36
			1,05,72,53,529.86	61,09,91,594.51
	<b>TOTAL</b>		2,49,67,54,308.51	1,87,49,83,089.86
	<i>Brief about the Society</i>	1		
	<i>Summary of significant accounting policies</i>	2		

As per our report of even date attached

For RSM & ASSOCIATES  
CHARTERED ACCOUNTANTS  
FRNo. 28135

PAUL JOSEPH K FCA  
PARTNER  
M.No.26816  
UDIN : 25026816BMLWFH4371

Place: COCHIN  
Date :30.09.2025



For MALABAR CANCER CENTRE SOCIETY

Dr. B. SATHEESAN  
DIRECTOR

Dr. SATHEESAN, S  
DIRECTOR  
Malabar Cancer Centre (PGIOSR),  
THALASSERY

REJI SANKAR S T  
FINANCE OFFICER  
REJI SANKAR S T  
FINANCE OFFICER  
Malabar Cancer Centre (PGIOSR)

**MALABAR CANCER CENTRE SOCIETY Post Graduate Institute of Oncology Sciences and Research  
(MCC- PGIOSR)**

**THALASSERY, KANNUR**

(Amount in Rs.)

**CONSOLIDATED STATEMENT OF INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED  
31ST MARCH 2025**

Sl. No:	PARTICULARS	Note No.	31-Mar-25	31-Mar-24
I	Revenue from operations	17	1,12,63,99,370.00	99,33,64,462.80
II	Other Income	18	30,03,59,517.13	18,47,51,561.99
III	<b>Total Income (I+II)</b>		<b>1,42,67,58,887.13</b>	<b>1,17,81,16,024.79</b>
IV	<b>EXPENDITURE</b>			
a	Cost of Material Consumed	19	35,81,26,580.43	33,43,85,541.23
b	Employee Benefit Expenses	20	59,68,94,343.00	47,73,86,897.00
c	Depreciation and amortization expense	21	30,48,02,280.00	27,63,77,565.00
d	Other Expense	22	25,63,58,659.94	18,81,79,785.63
	<b>Total Expenditure</b>		<b>1,51,61,81,863.37</b>	<b>1,27,63,29,788.86</b>
V	<b>Excess of Income over Expenditure (III-IV)</b>		<b>(8,94,22,976.24)</b>	<b>(9,82,13,764.07)</b>
	<i>The accompanying notes are an integral part of the financial statements</i>			

As per our report of even date attached

For RSM & ASSOCIATES  
CHARTERED ACCOUNTANTS  
FRNo. 2813S



PAUL JOSEPH K FCA  
PARTNER  
M.No.26816  
UDIN : 25026816BMLWFH4371



Place: COCHIN  
Date : 30.09.2025

For MALABAR CANCER CENTRE SOCIETY  
DIRECTOR  
Malabar Cancer Centre (PGI)  
THALASSERY

Dr. B. SATHEESAN  
DIRECTOR



REJI SANKAR S T  
FINANCE OFFICER

REJI SANKAR S T  
FINANCE OFFICER  
Malabar Cancer Centre (PGIOSR)

## CONSOLIDATED RECEIPTS &amp; PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025

Sl.No:	PARTICULARS		FY : 2024 -2025
I.	<b>RECEIPTS</b>		
	<b>Opening Balance</b>		
	Cash in Hand	4,00,429.00	
	Cash at Bank	20,98,00,917.55	21,02,01,346.55
	<b>Corpus Funds</b>		
	Grant Received & Interest accrued on investment from Govt - PLAN FUND (Net of resumed & directly expended)		10,35,14,098.00
	Grant Received from Govt & Interest Accrued on investment from RKI Fund (Net of resumed)		30,18,26,839.00
	<b>Receipts from Funds &amp; Schemes</b>		
	BIRAC - Mission Covid Suraksha Project	91.00	
	BCCS Projects	22,94,245.00	
	DBT AIDO Scan Project	2,92,590.00	
	SPT Trial	3,15,963.00	
	SERB Project	1,97,287.00	
	Patients Welfare Fund	8,56,288.00	
	Patients' Account (PMNRF)	2,26,30,576.00	
	HBCR - NCDIR - ICMR Project	7,77,072.00	
	Ultrasonic Transducer Probes for Medical Ima-Grant	11,58,923.00	
	HPV Associated Oral and Oropharyngeal Carcinoma	8,37,745.00	
	JIPMER NAGA STUDY	2,95,515.00	
	Oral Precancer & Cancer Thraputic & Prognostic marker	11,38,491.00	
	NCDIR-POCSSProject	10,36,624.00	
	CGBB Project	3,29,877.00	
	BIRAC CTN- GRANT	23,87,796.00	
	POICE	4,56,517.00	
	Aware and Awake Project	2,933.00	
	APL DOSA	2,78,500.00	
	NGS - Roche	15,00,000.00	
	GK Memorial Educational Trust	1,00,000.00	
	Lions Club	16,80,000.00	
	UTP Project	5,77,875.00	
	<b>CSR Fund</b>		
	Indian Oil Corporation, Mumbai	20,00,000.00	
	KSBCD Corporation Ltd	8,82,708.00	
	ONGC Ltd	29,32,20,424.00	
	State Bank of India	1,00,00,000.00	
	The Pharmaceutical Corporation	1,00,00,000.00	35,52,48,040.00
	<b>Income Received</b>		
	Income from Training & Teaching	2,57,23,536.00	
	Revenue from Hospital Operations	29,58,77,081.85	
	Academic & Research Income	1,30,900.00	
	Programme & Awareness Income	1,22,670.00	
	Income received for Clinical Trials	99,202.00	
	Interest income	36,28,776.00	
	Rental Income	26,83,500.40	
	Canteen Sales	3,99,36,693.70	
		-	36,82,02,359.95



REJI SANKAR S T  
FINANCE OFFICER  
Malabar Cancer Centre (PGIOSR)



Other Income	11,68,958.00	
Application Fee	16,999.00	
Fine & ID fee	2,380.00	
Income from Ambulance Service	2,39,190.00	
Income from sale of Bus Coupon	6,77,800.00	
Income from sale of Tender forms	2,78,858.00	
Income from xerox	66,400.00	
Penal Liquidation Charges	1,40,821.28	
Miscellaneous Income	70.00	
RTI Fee collected	3,04,500.00	
Sale of Sand , Scrap & Trees	30,100.00	29,26,076.28
Van Hire Charges Collected		11,74,46,989.00
Grant Received from Govt		-
Insurance Claim Received		89,00,880.00
Income Tax Refund		-
collection for uniform and Text books		44,90,56,991.48
Income received in Advance		-
PTA & SNA fee collected		42,95,572.00
Collection from Students		25,21,500.00
Caution Deposit received		1,91,098.00
Advance received		23,69,399.00
EMD Received		36,52,605.15
Security Deposit received		68,651.60
Term Deposit against BG - interest received		10,15,62,383.40
Receipt from Debtors (Net)		
<b>Branch Transfers</b>		
Malabar Cancer Centre	28,18,701.00	
MCC - Canteen	16,43,448.00	
MCC - Projects	1,87,35,774.74	
MCC - Nursing College	2,10,00,000.00	4,41,97,923.74
<b>TOTAL</b>		<b>2,07,61,82,753.15</b>
<b>II PAYMENTS</b>		
<b>Funds Utilised</b>		
BIRAC - Mission Covid Suraksha Project	-	
Patients' Account (PMNRF)	12,99,748.00	
Patients Welfare Fund	95,619.90	
Ultrasonic Transducer Probes for Medical Ima-Grant	6,77,077.00	
DBT AIDO Scan Project	1,97,191.00	
UTP Project	9,774.00	
Medical Librarian	10,978.00	
	-	22,90,387.90
Payment to Creditors (Net)		1,06,23,29,231.53
Bank Loan recovered remitted		4,65,048.00
EMD Refunded		11,86,167.00
Security Deposit refunded		1,47,000.00
Caution Deposit refunded		26,06,456.00
Deposits		9,000.00
Advance given		28,74,53,315.00
GST & GST TDS Paid		20,13,085.00
Tax Deducted at Source		1,07,53,468.50
<b>Capital Expenditure</b>		
Plant & Machinery	1,705.00	
Furniture & Electrical fittings	1,920.00	
	-	3,625.00



REJI SANKAR S I  
FINANCE OFFICER  
Malabar Cancer Centre (PGIOSR)





## PATIENT WELFARE ACTIVITIES

The Patient Welfare Committee was constituted for the smooth functioning of our Patient Welfare Activities has attributed a boost to our patient services and management. The Committee consists of Doctors of different specialties, representatives from Administrative section, Social Scientist and Nursing personnel. The Committee co-ordinates the welfare activities of the patients who are undergoing treatment at this Centre. It promotes to raise funds for the patient welfare fund from the general public as well as staff members of Malabar Cancer Centre. Majority of the staff members generously donate to this fund. This fund is utilized for the treatment/investigations for the needy patients after proper assessment.

### PATIENT WELFARE SCHEMES

- Comprehensive Health Care Project for Scheduled Tribe patients.
- Prime Minister's National Relief Fund
- Chief Ministers Relief Fund
- Cancer Suraksha Scheme
- Thalolam
- Sneha Santhwanam
- CHIS PLUS
- PMRS (Pondicherry Medical Relief Society)
- Employees State Insurance Credit facility
- Karunya Benevolent fund

### FREE TREATMENT AND SUBSIDY GIVEN

**Percentage of patients given free treatment using various financial assistance schemes & Subsidy given based on Economic status.**

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
<b>Total % of patients given free Treatment using various financial assistance schemes.</b>	96.00 %	95.94 %	95.10%	87.56%	82.76%	92.59%	89.29%	88.52%	
<b>Treatment charge discount</b>	3.85 Cr.	5.54 Cr.	5.77 Cr	4.20 Cr.	1.01 Cr.	0.52 Cr.	0.69 Cr.	0.613 Cr.	0.461Cr.
<b>Pharmacy discount (from MRP)</b>	27.43 Cr.	26.13 Cr.	26.18 Cr	15.62 Cr.	11.44 Cr.	20.50 Cr.	21.79 Cr.	20.782 Cr.	23.92Cr.
<b>Total treatment subsidy given by MCC(PGIOSR)</b>	31.28 Cr.	31.67 Cr.	31.95 Cr.	19.82 Cr	12.45 Cr	21.02 Cr	22.48 Cr.	21.395 Cr.	24.38Cr.

### **PATIENT FREE FOOD SCHEME:**

- As most of our patients belong to lower socio-economic strata struggling to earn for their meal, with the financial assistance from philanthropists and like-minded organizations, all in-patients are given food (three times a day) at free of cost.

### **PATIENT WELFARE FUND:**

- The Patient Welfare Committee co-ordinates all the welfare activities of the patients who are undergoing treatment at this Centre. It promotes to raise the money for the patient welfare fund from the general public as well as staff members of Malabar Cancer Centre (Post Graduate Institute of Oncology Sciences and Research). This fund is utilized for the treatment/investigations for the needy patients after proper assessment. Those patients who fail to get any Government assistance scheme are assisted with this fund.

### **HOSPITAL LIBRARY FOR PATIENTS AND RELATIVES:**

- A unique Hospital library for patients, their relatives and staff is functioning in the centre since 2005. The library is funded by Kerala State Library Council.

### **FREE HOME CARE SERVICES:**

- Home care services are provided to patients staying nearby and who are unable to travel to MCC for availing treatment. Medicines like morphine, certain palliative procedures are performed by trained staff. MCC (PGIOSR)'s own vehicle is used for the purpose and no charge is levied for the services.

### **DRUG BANK:**

- Apart from the above a Drug Bank is also formulated for collection of drugs from Doctors in and around Thalassery and also sample medicines issued from various pharmaceutical companies. Such medicines are issued free of cost to the needy poor patients, who are undergoing treatment from this Centre.

### **FREE TRANSPORT SYSTEM:**

- Renowned business tycoon and great philanthropist, Shri.Gokulum Gopalan donated a mini bus for transportation of patients to and fro from MCC(PGIOSR), which is situated on a hill top in the suburb of Thalassery town and Railway station of Thalassery. This is of immense help to poor patients.

### **WAITING AREA AND RESTING AREA FOR BYSTANDERS**

- Constructed using the MLA ADS scheme of Advt. AN. Shamseer, MLA Thalassery.

### **DORMITORY SUPPORT FOR BYSTANDERS (CARERS):**

- Many patients come from far off places from various Districts. Their care givers need accommodation to support their loved ones. Most of them are unable to bear the expenses of stay in rented buildings or Hotels. Hence through MPLADS, Adv.Sathidevi was kind enough to provide a Dormitory, built within the campus. Here bystanders of in-patients are provided free accommodation.

## **‘AKSHAYA’- FINANCIAL SUPPORT SCHEME FOR BONE MARROW TRANSPLANTATION:**

- Bone marrow transplantation (BMT) treatment is highly expensive and not many patients will be able to afford the same. It is a state of art curative treatment for my blood cancers. But it has significant failure and death rate apart from financial toxicity. The Government sponsored schemes will not be quite enough to cover up the expenses in this regard. To help out poor cancer patients, MCC-PGIOSR has decided to set up a separate fund for meeting the expenses of patients in this regard. Donations from individuals, voluntary organizations, philanthropists are expected for raising this fund. The fund is proposed as a "EverGreen" scheme. Monthly electronic transfer to the account of Akshya Scheme from the donor's account through standing instruction to the bank is suggested to achieve the goal. Any amount is considered big and there is no limitations to the monthly transfer. It is desired to get a minimum of 10 lakhs per month through this method so that no patient shall drop out of the ambit of Bone marrow transplantation.

## **MUKULAM FUND**

- It is important to consider that while government schemes can provide treatment for children in need, their families may require additional support in areas such as accommodation, emotional well-being, travel, and nutrition. This fund will not only reduce out-of-pocket expenses for families, but also improve patient care by enhancing infrastructure, manpower efficiency, and research.

## HOW TO SUPPORT MCC(PGIOSR)

An Appeal: It is well-known that cancer treatment is costly, and many individuals cannot afford the expenses without financial support. MCC is dedicated to providing free care for economically and socially disadvantaged patients, as well as at reduced rates for others. Numerous patients have already sought financial aid from various organizations. Many generous institutions and agencies have previously assisted our underprivileged patients, and several have expressed their intention to continue supporting such individuals in the future.

Generous donations are welcome to realize the dream: It may please be noted that donations to MCC are exempted from income tax according to rule 80G of the Income Tax Act

Donations to MCC may be forwarded to Director, Malabar Cancer Centre or to the following Account in ICICI bank, Thalassery Branch:

Account Name: **MCC SOCIETY PATIENT WELFARE SCHEME**  
Account Number: 04620 100 2346  
IFS Code: ICIC0000462  
MICR Code: 670229102  
Swift Code: ICICINBBXXX  
VPA ID: mccspws@icici  
Bank & Branch: ICICI, Thalassery Branch.

## PATIENTS FRE FOOD SCHEME

MCC recently launched a "Patients Free Food Scheme" for all patients, regardless of their financial status. This initiative, currently supported by Malabar CH Centre, provides meals to all inpatients through the MCC canteen. This generous program has enabled many underprivileged patients to complete their treatment and significantly reduce financial burden. MCC is seeking additional financial support through donations from individuals, corporate institutions, and state-owned corporations to extend the food provision to caregivers as well.

Generous to realize the donations are welcome dream: Donations to MCC may be forwarded to Director, Malabar Cancer Centre or to the following Account in ICICI

Account Name: **MCC SOCIETY PATIENT WELFARE SCHEME**  
Account Number: 04620 100 2346  
IFS Code: ICIC0000462  
MICR Code: 670229102  
Swift Code: ICICINBBXXX  
VPA ID: mccspws@icici  
Bank & Branch: ICICI, Thalassery Branch.

## RIGHT TO INFORMATION ACT & RIGHT TO SERVICE ACT

Malabar Cancer Centre (MCC) has implemented the Right to Information Act 2005. Citizens can seek information about the activities of MCC by submitting a written request with contact details like Name, address, telephone number, etc and particulars of the information sought by submitting a fee of Rs.10 at the cash counter, or Demand Draft drawn in favour of the Director, Malabar Cancer Centre payable at Thalassery. Court fee stamp/post orders will not be considered.

In accordance with the provisions contained in the section 5(i) of the Right to Information Act, 2005 the following officers are designated as the State Public Information Officer and Appellate Authority of Malabar Cancer Centre.

### Right to Information Act - Data from 01.04.2024 to 31.03.2025

Number of applications received by Public Information Officer-MCC, during the period	26
Number of applications received by Appellate Authority- MCC, during the period	0
Number of hearings conducted by Chief State Information Commission, during the period	0

### Right to Service Act - Data from 01.04.2024 to 31.03.2025

MONTH	NO OF CERTIFICATES ISSUED	TOTAL NO OF APPLICATIONS PROCESSED EXCEEDING THE TIME LIMIT	TOTAL NO OF FIRST APPEALS	TOTAL NO OF SECOND APPEALS
April 2023	1007	0	0	0
May 2023	914	0	0	0
June 2023	873	0	0	0
July 2023	947	0	0	0
August 2023	1036	0	0	0
September 2023	944	0	0	0
October 2023	1110	0	0	0
November 2023	1134	0	0	0
December 2023	1068	0	0	0
January 2024	1313	0	0	0
February 2024	1190	0	0	0
MARCH 2024	1107	0	0	0
<b>Total</b>	<b>12643</b>	<b>0</b>	<b>0</b>	<b>0</b>

Public Information Officer	Asst. Public Information Officer
<p><b>Sri. A.K. Rajesh</b>  Administrative Officer  Malabar Cancer Centre Thalassery  Moozhikkara (P.O), Kannur Dist.,  Kerala, India-670103.  Phone:(+91)0490 2355881,  Mobile:(+91) 94960 48800  Fax: (+91) 0490 2355880</p>	<p><b>Smt. Lasitha KV</b>  Store Keeper  Malabar Cancer Centre Thalassery  Moozhikkara (P.O), Kannur Dist.,  Kerala, India-670103.  Phone:(+91)0490 2355881,  Fax: (+91) 0490 2355880</p>
Appellate Authority	
<p><b>Dr. B. Satheesan</b>  Director  Malabar Cancer Centre Thalassery  Moozhikkara (P.O), Kannur Dist.,  Kerala, India-670103.  Phone: (+91) 0490 2355881, Fax: (+91)0490  2355880</p>	



BMT UNIT



LINAC MACHINE



OT



GENETICS LAB



MOLECULAR LAB



SPECT CT



DIGITAL MAMMOGRAM



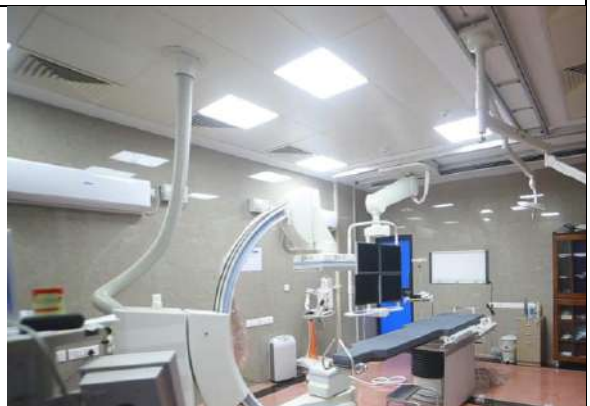
DAY CARE CHEMO WARD



MRI



4D CT



CATH LAB UNIT



64 SLICE CT SCANNER



PET CT



CANCER BIO BANK



TELE COBALT UNIT



RECOVERY ROOM



LAB REPORTING ROOM



CANTEEN



PEDIATRIC ONCOLOGY BLOCK



PEDIATRIC ONCOLOGY BLOCK



INSeR-NURSING COLLEGE



PEDIATRIC PLAY AREA



CELL CULTURE FACILITY



**MALABAR CANCER CENTRE**  
**(POST GRADUATE INSTITUTE OF ONCOLOGY SCIENCES & RESEARCH)**  
*(An autonomous institution under Government of Kerala)*