MALABAR CANCER CENTRE, THALASSERY

(POST GRADUATE INSTITUTE OF ONCOLOGY SCIENCES AND RESEARCH)
(An autonomous Institution under Government of Kerala)
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INSTITUTIONAL FELLOWSHIP PROGRAMME BROCHURE

JUNE - 2026

LIST OF FELLOWSHIP PROGRAMMES

1. **Fellowship in Psycho Oncology**
2. **Fellowship in Oncology Social work**
3. **Fellowship in Oncology Nutrition**
4. **Fellowship in Oncophysiotherapy**
5. **Fellowship in Onco Respiratory therapy and pulmonary rehabilitation**

1.0 MALABAR CANCER CENTRE, THALASSERY

Malabar Cancer Centre (Post Graduate Institute of Oncology Sciences and 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 MCC started from March 2001 onwards. At present MCC has more than 200 in-patient bed strength. The control and management of the Society are vested in the Governing Body consisting of 23 members with the Honourable 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.

MCC (PGIOSR) provides a full spectrum of oncological care as an autonomous not-for-profit institution funded by the State Government and other sources. Patients are categorized according to their economic status, and accordingly it is expected that 95-97% of patients will be provided free treatment through various financial assistance schemes of the Government. The main modalities of treatment offered by MCC to patients, presently, include radiotherapy, chemotherapy, onco-surgery and palliative care. The Centre also carries out Community Oncology activities including cancer awareness and early detection programmes. The institute caters to patients from 7 districts of Northern Kerala in addition to the neighbouring states of Tamil Nadu, Karnataka and Mahe (a total population of over 1.5 crores).

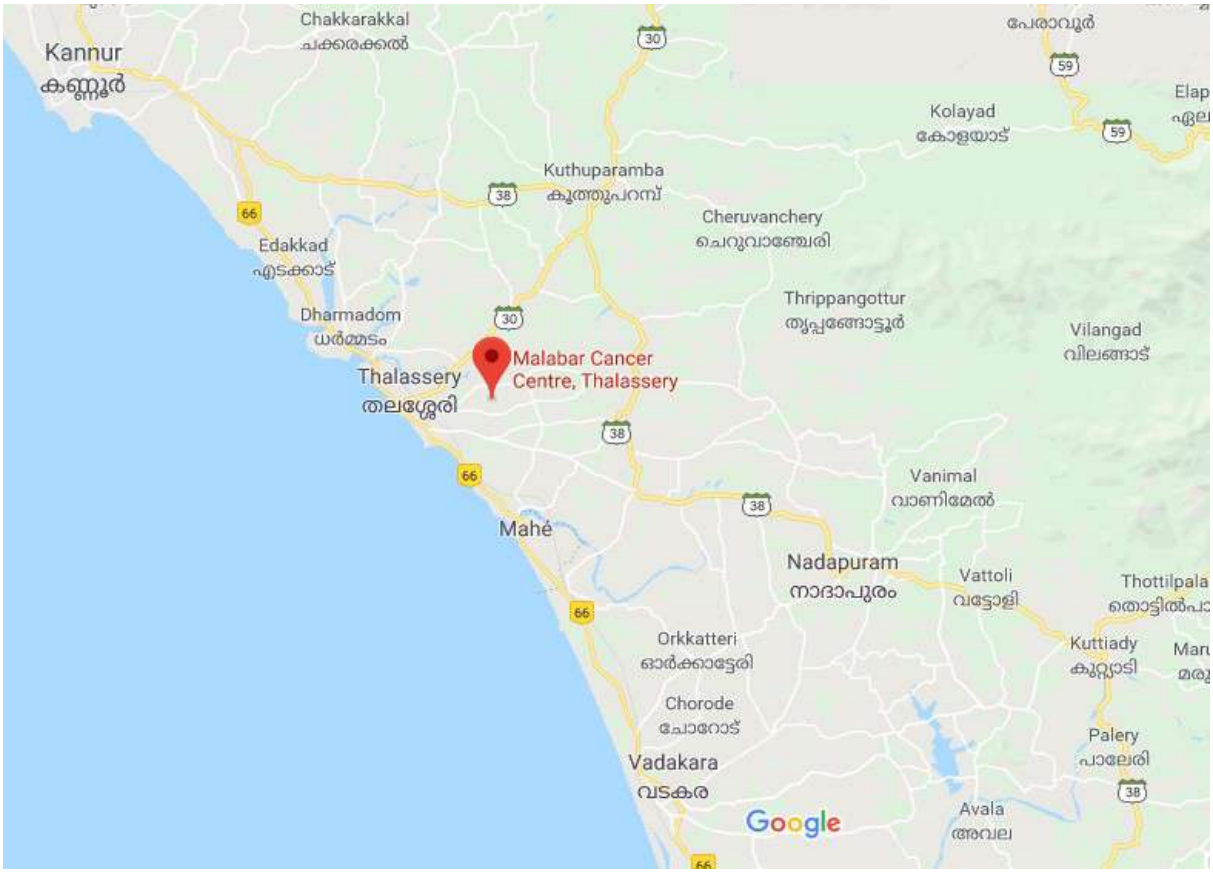
Location: Kodiyeri, Thalassery, Kannur District, Kerala.

Thalassery (formerly Tellicherry) is a commercial town on the Malabar Coast in Kannur district, in the state of Kerala, India, bordered by the districts of Mahe (Pondicherry), Kozhikode, Wayanad and Kodagu (Karnataka). The town of Thalassery is historically renowned for its 3 “C “ s of ***Cake, Circus and Cricket***. Thalassery is at times referred to as the city of cricket, cakes and

circus. It was a British bastion in the pre-independence era with marked contributions of colonial rule.

It is the second largest populated municipality of North Malabar.. The Europeans nicknamed the town "Paris" or in other words "The Paris of Malabar", as it was the sole French military base in Kerala in that era..Thalassery municipality has a population just under 100,000.and an area of 23.98 square kilometres. It is 22 km south of the district headquarters - Kannur city.

Thalassery municipality was formed on 1st November 1866 according to the Madras Act 10 of 1865 of the British Indian Empire, making it the second oldest municipality in the state. At that time the municipality was known as Thalassery Commission, and Thalassery was the capital of North Malabar. G. M. Ballard, the Malabar collector, was the first President of the municipal commission. Later a European barrister, A. F. Lamaral, became the first Chairman of Thalassery municipality. Thalassery grew into a prominent place during European rule, due to its strategic geographic location. Thalassery has played a significant historical, cultural, educational and commercial role in the history of India, especially during the colonial period.



2.0 Introduction

Global Cancer Burden

Cancer is an umbrella term covering over 40,000 unique disorders characterized by unlimited replicative potential, virtual mitotic immortality and propensity to invade non native tissues. Despite being one of the few curable non communicable diseases, cancer remains a major public health problem worldwide, accounting for over 8 million deaths worldwide. As per Globocan 2018 data, there were 18.1 million new cases of cancer. While cancer has been traditionally viewed as a disease of the affluent world, 65% of the cancer deaths occur in the less developed nations. Cancer is the 4th most common cause of death, accounting for almost 12.5% of all deaths occurring worldwide. Not only does cancer cause suffering in terms of mortality and morbidity, but it also has a significant socio-economic impact. As per the Global Economic Cost of Cancer Report (American Cancer Society), the total economic impact of premature death and disability from cancer worldwide was $895 billion in 2008. This figure, which does not include direct costs of treating cancer, represents 1.5 percent of the world's GDP. Cancer causes the highest economic loss of all of the 15 leading causes of death worldwide. The economic toll from cancer is nearly 20 percent higher than heart disease, the second leading cause of economic loss ($895 billion and $753 billion, respectively).

Burden of Cancer in India

As per the estimates provided by Globocan 2018, worldwide the age standardized incidence of all cancers including non melanoma skin cancers, were 218 per 100,000 in males and 182.6 per 100,000 in females. In India it is around 90 per 100,000 population in males and females. In India the five most common cancers are cervical cancer, Breast Cancer, Head Neck Cancers, Lung and Colorectal cancers. This is also unlike the case in the USA where Prostate, Breast, Lung, Colorectal cancers and melanomas are the 5 most common cancers. It should be remembered that this data probably represents a gross under-representation of the true burden as the NCRP data that is the basis for this report has a single rural based cancer registry, where 70% of the Indian population is known to reside. As per Globocan 2018 there are 1.15 million new cancer cases annually. Perhaps more worrisome is the fact that the burden of cancer will nearly double in the next two decades with an estimated 1.7 million new cases and 1.2 billion cancer deaths occurring annually by the year 2035.

As India's population ages and the deaths attributable to infectious diseases are reduced, the burden of mortality due to non communicable diseases will experience an upsurge. Deaths caused by cancer are projected to increase from 730 000 in 2004 to 1·5 million in 2030, and those attributable to cardiovascular causes from 2·7 million in 2004 to 4·0 million in 2030 as per the Global Burden of disease study.

Challenges to Cancer Care in India

In a well publicised position paper in Lancet Oncology, Professor Mallathet al, have highlighted several challenges facing our nation in ensuring adequate and equitable cancer care. Despite the substantial socioeconomic progress made over the past 5 decades since Independence, our per capita purchasing power is only 5-10% of that of the Western nations. If we take the example of Trastuzumab, a monoclonal antibody that has proven to have significant benefits in a subgroup of breast cancer patients, the annual cost of treatment for an average Indian female works out to be $20,000. This represents ~ 30% of the cost incurred for the same drug in the USA ($70,000). As can be appreciated in terms of relative purchasing power, the same drug, although retailed for a lesser price, extracts a far more severe economic penalty on Indians. This economic burden is aggravated by the fact that use of such life saving drugs is associated with a net societal economic benefit in terms of quality adjusted life years (QALY) saved. As estimated by Lopes et al, the mean societal cost benefit due to herceptin in Singapore is $4300. Given the central role that a woman plays in the family in India the socio-economic impact of lives lost, due to inability to afford this medication is likely to be higher. This is not only the case for new drugs but also for existing drugs and devices.

India is also experiencing a slower demographic transition in terms of disease burden. While the burden of chronic disease is increasing, a high burden remains for acute infectious diseases and accidents. As a result formulating an effective health policy remains a challenge. India thus requires a health care policy that combats malnutrition while emphasizing prevention of obesity at the same time. Till date the national cancer control program has focussed its efforts on enhancing and upgrading infrastructure at select cancer centres along with emphasizing education as the primary modality for prevention. We lack dedicated screening programmes for most cancers as till date the population prevalence for most cancers is below 5 per 100,000.

As highlighted in the report by Professor Mallath et al, India invests less than 1·5% of its GDP on central government-funded and state-funded health care, out of a total public plus private spend of little more than 4% of GDP. No other comparable nation spends as small a proportion of its national resources on public health care. The situation is further complicated by factors such as poor fiscal governance; sub-optimum (health sector-related) relationships between the federal and

state governments; poor public health expertise (compounded by inadequate medical and other health professional education); substantial regional variations; and gross education, caste, and class-related inequalities in income and access to services.

Although Indian society places strong emphasis on familial bonds, there is an absence of a corresponding emphasis on ensuring adequate funding for service requirements in the community. As a result majority of the treatment costs are borne out of pocket resulting in further exacerbation in the disparities in cancer care.

Perhaps the biggest problem faced by the policymakers in India today is the inadequate infrastructure available for training and education for professionals. While 60% of specialist facilities are located in regions to the south and the west of India, 50% of the population lives in the Central and Eastern parts of the country. The regional disparity in cancer care is even more apparent when we consider the imbalance in availability of therapy facilities. In addition to the disparity among regions, there is an imbalance in the availability of services in rural and urban areas. As a result of this disparity patients with cancer often have to travel long distances and stay in suboptimal conditions to access appropriate cancer care which they can afford.

Challenges to Cancer Research in India

Even more worrisome is the state of cancer research in India. India, which has about 17% of the world population, is involved in only about 1.5% of all clinical trials worldwide. The amount of ongoing research activities can be gauged from the number of clinical trials ongoing in the nation. In this respect a search of the Clinical Trial Registry of India reveals that there are only 331 registered trials in Cancer of which only 141 are actively recruiting participants. Of the 57 clinical trials being conducted in Kerala none are open to recruitment at present. In contrast, a search of the clinical trial registry database of the National Cancer Institute reveals 1518 active clinical trials dealing with various aspects of cancer research. As can be easily appreciated, the number of trials being conducted in India on Cancer at this point of time is less than 10% of what is being conducted in the USA. Perhaps more worrisome is the fact that there is a dearth of investigator initiated research with less than 3% of the registered trials being investigator initiated studies.

Another metric to gauge the research output is the number of publications in peer reviewed journals. In this regard also India is far behind that of the USA. In a bibliometric analysis of publications related to cancer research reported by Patra et al, only 648 publications were identified in Pubmed as originating from India in contrast to the 1,53,341 publications from India. Of the total number of publications, India contributed to only 0.4% of the available publications. The authors found that most of the publications were in low impact factor journals

and there was a marked regional disparity with Kerala accounting for only 6.5% of the national research output.

We conducted a search of Pubmed using the same filters and found that 25,047 articles were identified from India. However during the same time period, the total number of publications from the USA was 3, 80,771. In the year 2012, 2122 articles were published from India as compared to 25,364 articles from the USA. Thus over the period of the last decade while some increase in research activities has been observed the total research output of India remains less than 10% of that in the USA.

Hence from the above it can be easily concluded that Cancer research is at a nascent stage in India. Given the dearth of manpower and high patient load at most cancer centres it is not difficult to imagine the reasons behind the lack of research activities. Further impediments in conducting research activities in India include the phenomenon of "brain drain", lack of appropriate training and infrastructure to conduct research, absence of incentives for conducting research and less funding available for research. Other problems that have been highlighted in a publication by Saini et al and Thatte et al include:

1. Shortage of trained staff well versed in GCP norms.
2. Lack of formal training in bioethics and research methodology
3. Heavy burden of clinical duties
4. Sub-optimal administrative support
5. Absence of oversight of functioning of ethics committees
6. Lack of mechanisms for ensuring quality of ethics review heightens societal concerns about safety of participants.

The current socioeconomic reality of the Indian health care system is that very few patients are able to get access to innovative drugs and treatments. The per capita total spending on health is $132 for India versus $3480 for the United Kingdom (currency assumed to be international dollars as per purchasing power parity). 70.8% of all healthcare expenditure in India is borne by private spending, compared to only 16.1% for the United Kingdom. As a result there is no incentive for international pharmaceutical companies to market the latest products in India. This, coupled with an adverse intellectual property environment, results in the large majority of the innovative drugs reaching the Indian market very late in their development. The need of the hour is to develop a robust mechanism to conduct clinical trials that have relevance to the cancer burden in India in the country itself. In this regard availability and continuous training of manpower assumes paramount importance.

3.0 FELLOWSHIP PROGRAMMES

ALL FELLOWSHIP PROGRAMS CONDUCTED BY MCC (PGIOSR) **ARE INSTITUTIONAL FELLOWSHIP PROGRAMS.**

Fellowship Programme in	Duration	Vacancy	Eligibility
Psycho-Oncology	**1 year**	**Two**	The candidate must have a regular Postgraduate degree in Psychology (Applied/ Clinical/ Counselling/ Health/ Psycho-oncology) with a minimum of 60% marks. The candidate should not be above 45 years of age as on 1st January of the current year.
Oncology Social Work	**1year**	**One**	The candidate must have a regular postgraduate degree in Master of Social Work (Medical & Psychiatry / Clinical Social Work) with a minimum of 60% marks. The candidate should not be above 45 years of age as on 1st January of the current year.
Oncology Nutrition	**1year**	**Three**	The candidate must have a postgraduate degree or diploma in Nutrition or related subjects with a minimum of 60% marks. The candidate should not be above 45 years of age as on 1st January of the current year.
Oncophysiotherapy	**1 year**	**Five**	The candidate must possess regular graduate degree in BPT- Bachelor of Physiotherapy
Oncorespiratory therapy and Pulmonary Rehabilitation	**1 year**	**Five**	The minimum qualification required is a Graduation in Respiratory Therapy — B.Sc. Respiratory Therapy / B.Sc. Respiratory Care Technology / B.Sc. (Medical Technology) – Respiratory Therapy — or a Diploma in Respiratory Therapy from any UGC-approved University or Health/Medical University in India.

THESE PROGRAMS DO NOT HAVE THE RECOGNITION OF REGULATORY BODIES OR UNIVERSITIES.

THE PROGRAMS ARE STRUCTURED SO THAT CANDIDATE WILL GET ADEQUATE EXPOSURE AND PRACTICAL KNOWLEDGE IN RESPECTIVE FIELDS

4 . FELLOWSHIP IN PSYCHO-ONCOLOGY

Objective of the Programme

Psycho-oncology is a highly specialized stream under the branch of Psychology and Oncology, managing the behavioural, emotional, cognitive and social aspects of cancer patients and their families. It focuses on providing psycho-social interventions for patients and families from cancer diagnosis till survivorship and palliation, thereby improving their Quality of Life. The division of Psycho-oncology has been functioning in this Centre since July 2017. The division also provides alcohol and tobacco de-addiction counselling for the patients. Apart from this, the division also manages the stress management and recreation activities of the staff dealing with cancer patients. The division combines Psychiatry, Psychology and Medical Social work aspects into Cancer care.

Though there is an increase in need of mental health professionals in oncology, only few institutions are offering courses in Psycho-oncology across India. It is important to have trained professionals in this field to cater the needs of people and family dealing with cancer. Psycho-oncology division is working with all the Inpatient and Outpatient care departments and divisions in the hospital, including Surgical, Medical, Radiation, Pain & Palliative care, Community Oncology, and Pediatric Oncology along with research and academic aspects of the hospital. This ensures that the trainee can be trained thoroughly so that he/she can work as a qualified Psycho-oncologist.

Objectives

1. To develop a regular full time academic program with extensive theoretical inputs and rigorous clinical experience in the area of Psycho-oncology.
2. To prepare the trainee to be qualified Psycho-oncologist to improve the psychological well-being and Quality of Life of cancer patients by diagnostic, therapeutic, rehabilitative, and administrative methods in psychology.
3. To conduct short-term research in Psycho-oncology along with real clinical experience.
4. To start and run a Psycho-oncology unit in a cancer hospital.
5. Upon completion of a one-year fellowship, the Psycho-oncologist is expected to possess the following characteristics:
    - Expertise in the multi – professional team working, giving psychological support for people with cancer in a variety of settings, throughout their cancer journey.
    - Ability to manage psycho-social concerns of the cancer patient and their families.
    - Ability to participate in the training of health care professionals and students about the importance of psychological well-being during cancer diagnosis and treatment.
    - Ability to promote evidence based practice through research and audit.

Eligibility

Eligibility of Admission: Minimum 60% marks in Regular MA/MSc Psychology (Clinical Psychology, Counselling Psychology, Health Psychology, Applied Psychology - Clinical)

Duration of the program

- The duration of the programme is 1 year

Fellowship Structure

One year full time clinical training divided into four parts
I. Theoretical Learning
a. Psycho-oncology
b. Research Methodology & Biostatistics
II. **Clinical & Practical hours**
a. Practical Assessments
b. Case study & Case reports
III. **Research Dissertation**
a. Viva-voce
IV. Internship (outside, if required)
a. 2 weeks
b. Institutional visit

PART I - THEORETICAL LEARNING

The total duration of didactic teaching sessions will be 60 hours. Theoretical learning will be conducted through presentations, demonstrations and case discussions. Attendance in teaching classes is considered mandatory.

Paper1: Psycho-oncology

Unit 1: Introduction to Psycho-oncology
Unit 2: Psycho-social concerns in view of Adaptation to cancer diagnosis and treatment – Prevention, Diagnosis, Treatment, Survivorship, Palliation (Case study: 3)
Unit 3: Psycho-social interventions and psychotherapeutic methods for management (Case study: 5)
Unit 4: Pediatric Oncology – Dealing with Adolescents, Parents, Family-Concerns, interventions, Rehabilitation (Case study: 2)
Unit 5: Psycho-Social Assessments In Psychology And Oncology Care

Paper 2: Research Methodology

Unit I: Introduction to Research
Unit II: Research Designs, Methods and Tools
Unit III: Statistics
Unit IV: Inferential Statistics
Unit V: Epidemiological Studies

Lecturing, discussions, seminar presentations, participating in workshops, webinars, conferences to understand the concepts of Psycho-oncology theory and practice based on the syllabus. Research methodology and Biostatistics theory and practice also will be covered for theoretical learning and research purposes.

PART II - CLINICAL & PRACTICAL HOURS:

The fellow has to do clinical work including OP and IP consultation with patients and families as individual or group sessions. Every day ward rounds are mandatory. They need to do case discussions and presentations in the division for management and follow up plans. They may need to be involved in Multispecialty Tumor Board (MSB) and grand rounds with other Oncology departments. Different psycho-social assessments used for cancer patients are also part of practical hours. The fellow has to submit a minimum of 10 cases in the whole course from case history, screening and assessment to management. The fellow has to maintain a log book for the fellowship.

a. Practical Assessments
b. Case study & Case reports

PART III - RESEARCH DISSERTATION & VIVA: Fellows will be expected to take up one research study, to be completed within a span of one year. Acquiring extramural funding for these projects will be encouraged and fellows are expected to have a submitted publication prior to completion of the fellowship in the project concerned. In addition to this conference presentations are recommended and encouraged. Fellows will be expected to complete the project prior to getting a completion certificate. Viva voce will be conducted for the fulfilment of the fellowship to get a certificate.

PART IV INTERNSHIP (if required):

1. Internship (2 weeks)
2. Institution visit

Evaluation

An end of fellowship examination will be conducted to evaluate the candidate in terms of the knowledge gained from the fellowship The examination will be mandatory for passing the fellowship and for grant of the fellowship completion certificate along with completed project work mentioned above.

Fellow must attend two theory examinations – Psycho-oncology and Research methodology and Biostatistics – for the completion of the course. Each theory exam will carry 80 marks for written theory paper and 20 marks for internal/practical examination. The research dissertation viva voce and clinical viva will be conducted by an external faculty. The maximum mark for the same is 100. The pass percentage of all three will be 50%.

This Fellowship program is a Joint venture by MCC (PGIOSR) and JDT Islam College of Physiotherapy, Kozhikode. The centre for study will be MCC (PGIOSR) and Faculties of JDT will be providing Theory sessions online.

5. Fellowship in Oncology social work

Objective of the Programme

Medical social work supports individuals, families, and communities facing health-related challenges by addressing emotional, financial, and social needs alongside physical care. Patients may require help navigating the healthcare system, planning post-treatment care, or coping with life changes.

Oncology social work provides psychosocial services to patients and families affected by cancer, covering clinical practice, education, advocacy, administration, policy, and research. In India, health-focused social work programmes exist, but there are no specialized oncology social work courses, creating a significant skill gap that trained oncology social workers can fill.

The Psycho-oncology Division at MCC (PGIOSR) works closely with all inpatient and outpatient departments—including Surgical, Medical, Radiation, Pain and Palliative Care, Community Oncology, and Paediatric Oncology—along with research and academic units. This integrated environment enables comprehensive training to develop competent Oncology Social Work professionals.

Objectives

1. To develop a regular full time academic program in oncology social work
2. To promote excellence in psychosocial care to oncology patients, families, caregivers and their community through the process of oncology social work.
3. To prepare the fellow to be a specialised oncology social worker to improve the psycho-social well-being and quality of life of cancer patients through various methods of social work
4. To conduct short-term research in Psycho-social oncology along with real clinical experience.

Upon completing the one-year fellowship, the Oncology Social Work professional is expected to demonstrate:

- Proficiency in working within a multidisciplinary team to support cancer patients across various care settings throughout their treatment journey.
- Competence in addressing the psychosocial needs of patients and their families.
- Capability to contribute to training and sensitizing healthcare professionals and students on the role and importance of oncology social work.
- Commitment to advancing evidence-based practice through research and audit.

Eligibility

Minimum 60% marks in Regular MSW (Medical and Psychiatry/Clinical Social work)
Duration of the program
The duration of the programme is 1 year
Fellowship Structure
One year full time clinical training divided into four parts
I. **Theoretical Learning**
a. Oncology Social work
b. Research Methodology & Biostatistics
II**. Clinical & Practical hours**
a. Practical Assessments

b. Case work, Group work & Case studies

III. **Research Dissertation**

a. Viva-voce

IV**. Internship (outside, if required)**

a. 2 weeks

b. Community posting (Preventive and social medicine)

PART I THEORETICAL LEARNING

PAPER 1: ONCOLOGY SOCIAL WORK

Unit 1: Oncology Social Work-Past, Present and Future

Unit 2: Psycho-social concerns in view of Adaptation to cancer diagnosis and treatment – Prevention, Diagnosis, Treatment, Survivorship, Palliation

Unit 3: Complex Issues Affecting Quality of Life and Quality of Care

Unit 4: Psycho-social interventions in patients, Families and Caregivers

Unit 5: Assessment and Interventions with Children and Adolescent Cancer Patients-The Unique Challenges of Paediatric Oncology social work

Unit 6: Patient- And Family- Centred Care: Social Work Role and Organizational Models for Psychosocial Services

Unit 7: Health Care Advocacy: Legal and Ethical Issues in Oncology

Paper II RESEARCH METHODOLOGY & BIOSTATISTICS

Unit I: Introduction to Research

Unit II: Research Designs, Methods and Tools

Unit III: Statistics

Unit IV: Inferential Statistics

Unit V: Epidemiological Studies

PART II CLINICAL & PRACTICAL HOURS

The fellow has to do clinical work including OP and IP consultation with patients and families as individual or group sessions. Every day ward rounds are mandatory. They need to do case discussions and presentations in the division for management and follow up plans. They may need to be involved in Multispecialty Tumor Board (MSB) and grand rounds with other Oncology departments. Different psycho-social assessments used for cancer patients are also part of practical hours. The fellow has to submit a minimum of 10 cases in the whole course from case history, screening and assessment to management.

The fellow has to maintain a log book for the fellowship.

a. Practical Assessments

b. Case study & Case reports

PART III DISSERTATION & VIVA VOCE

This provides an opportunity for the fellow to practice research using the knowledge acquired. Fellows will be expected to take up one research study, to be completed within a span of one year. Acquiring extramural funding for these projects will be encouraged and fellows are expected to have a submitted publication prior to completion of the fellowship in the project concerned. In addition to this conference presentations are recommended and encouraged. Fellows will be expected to complete the project prior to getting a completion certificate. Viva voce will be conducted for the fulfilment of the fellowship to get a certificate.

PART IV INTERNSHIP

a. 2 weeks (outside, if required)

b. Community posting (Preventive and social medicine)

Evaluation

An end of fellowship examination will be conducted to evaluate the candidate in terms of the knowledge gained from the fellowship The examination will be mandatory for passing the fellowship and for grant of the fellowship completion certificate along with completed project work mentioned above. Fellows have to attend two theory examinations – Oncology Social Work and Research methodology and Biostatistics. Each theory exam will carry 80 marks for written theory paper and 20 marks for internal/practical examination. The research dissertation, viva voce and clinical viva will be conducted by an external faculty. The maximum mark for the same is 100. The pass percentage in all three will be 50%.

6. FELLOWSHIP IN ONCOLOGY NUTRITION

Nutrition is an integral component of cancer care, influencing treatment tolerance, recovery, quality of life, and overall clinical outcomes. As the role of nutrition in oncology continues to gain importance, there is an increasing need for healthcare professionals with specialized expertise in this field.

The Fellowship in Oncology Nutrition at Malabar Cancer Centre (PGIOSR) is a one-year advanced training programme designed to develop competent nutrition professionals capable of providing evidence-based nutritional care as part of multidisciplinary oncology teams. Through structured clinical training, academic learning, and research, the programme equips fellows with the skills required to manage the nutritional needs of cancer patients across the continuum of care, from diagnosis and treatment to survivorship and palliative care.

Fellowship Competencies

1. **Multidisciplinary Oncology Nutrition Care:** Deliver nutrition care as an effective member of the multidisciplinary cancer care team.
2. **Nutrition Assessment and Intervention:** Assess nutritional status and implement appropriate nutrition interventions and support.
3. **Management of Nutrition-Related Complications:** Identify and manage nutrition-related challenges throughout cancer treatment and recovery.
4. **Education and Communication:** Educate and counsel patients, caregivers, students, and healthcare professionals.
5. **Research and Evidence-Based Practice:** Apply research principles, critically appraise evidence, and participate in quality improvement activities.
6. **Scientific and Analytical Skills:** Utilize research methodology, biostatistics, and data analysis in oncology nutrition practice.

Eligibility: Candidates should possess a Postgraduate Degree or Postgraduate Diploma in Nutrition or related disciplines with a minimum of 60% marks from a recognized institution.

Duration of the program: The duration of the programme is 1 year

Fellowship Structure
The fellowship consists of one year of full-time clinical training divided into four components:

I. **Theoretical Learning**
a. Nutrition in Oncology
b. Research Methodology and Biostatistics

II. **Clinical and Practical Training**
a. Practical Assessments
b. Case Studies and Case Reports

III. **Research Dissertation and Viva Voce**

IV. **Clinical Postings**

Didactic Teaching

The fellowship includes 30 hours of structured didactic teaching conducted over a period of 12 months. Teaching methods include lectures, presentations, case discussions, and practical demonstrations to facilitate comprehensive learning and skill development. Attendance and active participation in all scheduled teaching sessions are mandatory.

THEORETICAL LEARNING
a. Nutrition-oncology

Module I: Foundations of Oncology and Nutrition

- Introduction to Cancer Biology
- Carcinogenesis and Cancer Development
- Etiology and Risk Factors of Cancer
- Cancer Epidemiology
- Impact of Cancer on Nutritional Status
- Overview of Oncological Treatment Modalities
    - Surgery
    - Chemotherapy
    - Radiation Therapy
    - Immunotherapy
    - Targeted Therapy

Module II: Nutrition Assessment and Care Process

- Nutritional Screening in Oncology
- Nutritional Assessment Tools
- Nutrition Care Process (NCP)
- Nutrition Diagnosis
- Monitoring and Evaluation
- Nutrition Risk Stratification
- Body Composition Assessment
- Functional Assessment

Module III: Nutritional Implementation Guidelines and Clinical Practice

- Evidence-Based Nutrition Practice
- Clinical Nutrition Guidelines in Oncology
- Nutrition Care Planning
- Documentation and Quality Indicators
- Multidisciplinary Team Approach

Module IV: Nutrition Support in Oncology

- Indications for Nutrition Support
- Enteral Nutrition
- Parenteral Nutrition
- Feeding Access Devices
- Formula Selection
- Monitoring and Evaluation
- Complications and Management
- Refeeding Syndrome

Module V: Nutrition and Cancer Prevention

- Role of Diet in Cancer Prevention
- Physical Activity and Cancer Prevention
- Obesity and Cancer Risk
- Dietary Patterns and Cancer Risk
- Public Health Nutrition Strategies
- Cancer Survivorship Nutrition

Module VI: Surgical Oncology Nutrition

- Principles of Surgical Oncology
- Preoperative Nutrition Assessment
- Enhanced Recovery After Surgery (ERAS)
- Postoperative Nutritional Management
- Head and Neck Cancer Nutrition
- Gastrointestinal Cancer Nutrition
- Hepatobiliary and Pancreatic Cancer Nutrition
- Gynecological and Reproductive Malignancies
- Ostomy Nutrition Care
- Special Feeding Practices

Module VII: Medical Oncology Nutrition

- Principles of Medical Oncology
- Nutritional Impact of Chemotherapy
- Management of Treatment-Related Side Effects:
    - Nausea and Vomiting
    - Mucositis
    - Dysphagia
    - Taste Alterations
    - Diarrhea
    - Constipation
    - Fatigue
- Nutritional Management during Targeted Therapy and Immunotherapy

Module VIII: Radiation Oncology Nutrition

- Principles of Radiation Oncology

- Radiation-Induced Nutritional Complications
- Nutritional Management of:
    - Oral Mucositis
    - Xerostomia
    - Dysphagia
    - Enteritis
    - Radiation Esophagitis

Module IX: Hematology and Pediatric Oncology

- Hematological Malignancies
- Acute and Chronic Leukemias
- Lymphomas and Myeloma
- Pediatric Oncology Nutrition
- Nutrition During Intensive Chemotherapy
- Bone Marrow Transplantation Nutrition
- Neutropenic Diets and Infection Prevention

Module X: Palliative and Supportive Care Nutrition

- Principles of Palliative Care
- Cancer Cachexia
- Nutrition in End-of-Life Care
- Artificial Nutrition and Hydration
- Ethical Issues in Nutrition Support
- Symptom Management

Module XI: Integrative Oncology

- Complementary and Alternative Nutrition Therapies
- Dietary Supplements in Cancer Care
- Evidence-Based Integrative Oncology
- Patient Counseling and Communication

b. Biostatistics and Research Methodology

- Research Design
- Literature Review
- Data Collection Methods
- Scientific Writing
- Publication Ethics
- Conference Presentation Skills

Teaching methods will include lectures, discussions, seminar presentations, workshops, webinars, and conferences to facilitate understanding of the theoretical and practical aspects of oncology nutrition. Research Methodology and Biostatistics will also be covered to support academic learning and research activities.

PART II - CLINICAL & PRACTICAL HOURS:

The fellow shall undertake clinical responsibilities, including outpatient and inpatient nutritional consultations for patients and their families, conducted individually or in groups. Daily ward rounds are

mandatory. Fellows shall participate in case discussions and presentations within the division and may be involved in Multispecialty Tumour Board (MSB) meetings and grand rounds with other oncology departments. Each fellow shall submit a minimum of 10 documented cases covering case history, nutritional screening, assessment, intervention, monitoring, and outcomes. The fellow shall maintain a logbook documenting all clinical activities, case discussions, presentations, and competency achievements throughout the fellowship.

a. Practical Assessments

b. Case study & Case reports

PART III - RESEARCH DISSERTATION & VIVA:

Fellows shall undertake one research project, which must be completed during the fellowship period. Acquisition of extramural funding for research projects will be encouraged. Fellows are encouraged to submit at least one manuscript for publication and to present their work at scientific conferences. Successful completion and submission of the research dissertation is mandatory before the award of the fellowship certificate.

A Viva Voce examination shall be conducted to assess the fellow's understanding of the research work and related subject areas.

PART IV Clinical Posting

- Surgical Oncology
- Medical Oncology
- Radiation Oncology
- Hematology
- Palliative Care
- Speech and Swallowing Services

Assessment and Examination

At the end of the fellowship programme, a comprehensive examination will be conducted to assess the knowledge, skills, and competencies acquired by the candidate during the fellowship. Successful completion of the examination is mandatory for the award of the Fellowship Completion Certificate, along with the satisfactory completion and submission of the prescribed project work.

Candidates are required to appear for theory examinations in Nutrition Oncology and Research Methodology and Biostatistics. The theory component shall carry a total of 100 marks, comprising 80 marks for the written examination and 20 marks for internal assessment/practical evaluation.

In addition, candidates shall undergo a Research Dissertation Viva Voce and a practical/ Clinical Viva Voce, which will be conducted by external examiners. The viva component shall carry a maximum of 100 marks.

To successfully complete the fellowship, candidates must obtain a minimum of 50% of the total marks in the overall assessment, which includes the theory examinations/practical and viva voce examinations.

7. FELLOWSHIP IN ONCOPHYSIOTHERAPY

This Fellowship program is a Joint venture by MCC (PGIOSR) and JDT Islam College of Physiotherapy, Kozhikode. The centre for study will be MCC (PGIOSR) and Faculties of JDT will be providing Theory sessions online.

Objectives of the Program

The aim of this fellowship programme is to establish and provide the training foundations for those physiotherapists dedicated to careers in treatment of pain and function of the body, through training in the areas of rehabilitation of Cancer Patients. This expertise emphasizes critical analysis of patient problems and development of additional skills in the performance of exercise techniques required for the practice in making functional activity for oncology patients, including physiotherapy assessment and plan of treatment skills.

Duration of the Program

The duration of the course will be 1 year

Eligibility

BPT- Bachelor of Physiotherapy

Educational Objectives

The goals of this fellowships are to provide comprehensive, multidisciplinary training to individuals who are committed to a career of physiotherapy for oncology patients . The fellowship training will provide a broad exposure to the clinical problems encountered in an oncology physiotherapy practice. Upon completion of one-year fellowship, physiotherapist is expected to possess the following:

1) Expertise in the multidisciplinary physiotherapy management of patients with cancer related musculoskeletal and neurological conditions.
2) Broad-based knowledge and comprehension of providing principles of exercise therapy, rehabilitation for patients underwent surgical, radiation therapy oncology, bone marrow transplant, tendon transfer due to oncology.
3) Expertise in lymphedema drainage & Positioning management.
4) Expertise in gait and balance training
5) Expertise in safety exercise intervention, muscular fitness, aerobic fitness and developing the quality of life for cancer survivors.
6) Expertise in group and supervised setting
7) Appreciation of scientific methodology, study design, clinical trials and data analysis.

Educational Curriculum

The fellowship will provide clinical exposure to the following

1. Post Operative oncology rehabilitation management
2. Bed Side Positioning & movement management in ICU and Clinical Setting.
3. Chest mobilisation in ICU and bed side management.
4. Scar tissue healing & scar mobilisation.
5. Post operative exercise for Medical surgical, bone transplant management.
6. Safety exercise prescription for cardiac & respiratory conditions.
7. Physical activity for cancer survival.
8. Biomechanical changes in joints & muscle after cancer affected regions.
9. Lymphedema drainage management.
10. Journal clubs
11. Clinical research protocol
12. Out-reach programme- 2 weeks posting in reputed Cancer institute's. (Optional)- All the involved expenses shall be met by the candidate.

Syllabus

1. Anatomy and physiology changes in cancer stages.
2. Biomechanics and pathomechanics changes in the musculoskeletal system for cancer.
3. Functional therapeutic exercises.
4. Nonpharmacologic Pain Management in the Cancer Patient
5. Neurological, Musculoskeletal Complications of Cancer
6. Balance and gait dysfunction in cancer patient
7. Evaluation pain disorder in cancer patient
8. Complications of cancer patient
9. Post Operative surgical oncology physiotherapy rehabilitation management
10. Bed Side Positioning & movement management in ICU and Clinical Setting.
11. Chest mobilisation in ICU and bed side management.
12. Scar tissue healing & scar mobilisation.
13. Post operative exercise for Medical surgical, bone transplant management.
14. Safety exercise prescription for cardiac & respiratory conditions.
15. Physical activity for cancer survival.

Evaluation

Internal assessment of the candidates by faculty. (100 marks)

This will be done on a continual basis (Monthly) with respect to the overall objectives of the course, based on the prescribed textbooks and study materials. Evaluation of Log books, ward rounds included.

B] Final examination –by both internal & external examiner.

- It will consist of 2 theory papers (50 x 2 =100 marks)
- Clinical case discussion, Project Presentation and Viva Voce - 100 marks

*Candidates who successfully complete the fellowship program may be considered for the Post of Physiotherapist at MCC (PGIOISR) on Contract basis for one year.

8. FELLOWSHIP IN ONCORESPIRATORY THERAPY AND PULMONARY REHABILITATION

The Department of Respiratory Medicine and Critical Care is equipped with state-of-the-art facilities including pulmonary function testing, advanced interventional pulmonology, dedicated intensive care units, and rehabilitation services.

Aim

To establish a structured fellowship programme that enhances the scope of practice of Respiratory Therapists in oncology services.

Need for the Programme

Although many institutions in India offer Respiratory Therapy (RT) courses, the curriculum and clinical exposure vary widely. This fellowship aims to strengthen knowledge, skills, and hands-on experience in oncology by providing training in advanced interventional pulmonology, pulmonary function testing, ICU services (including ventilator and airway management), and onco-physiotherapy.

Curriculum

- Administer respiratory therapies including oxygen therapy, nebulisation, and chest physiotherapy
- Monitor and optimise mechanical ventilation in critically ill patients
- Assist with intubation and extubation
- Perform emergency airway management
- Assist in diagnostic and therapeutic bronchoscopy, thoracoscopy, and EBUS
- Conduct pulmonary function tests (spirometry, DLCO, lung volumes, 6-minute walk test)
- Educate patients and families on respiratory conditions and self-care
- Collaborate with multidisciplinary teams to develop or modify treatment plans
- Document patient progress and report clinical concerns to the medical team
- Provide emergency and life-saving respiratory care
- Patient counselling

Duration: One year

Number of Seats: 5

Mode of Study: Full-time, residential

Entry Requirements

Minimum qualification:

B.Sc. Respiratory Therapy / B.Sc. Respiratory Care Technology / B.Sc. (Medical Technology – Respiratory Therapy) or a Diploma in Respiratory Therapy from any UGC-approved University or Health/Medical University in India.

Fees

Tuition fee: INR 20,000/- (Includes INR 2,000/- refundable caution deposit)

Stipend: INR 8,000/- per month for 12 months.

Logbook

Fellows must maintain a logbook documenting all cases and procedures performed/observed. The designated faculty will review and sign the logbook and provide continuous feedback.

Research, Journal Clubs & Publication

- Each fellow must complete and publish a short thesis.
- Active participation in journal clubs is mandatory.
- All academic activities must be recorded in the logbook and countersigned by the HOD or assigned faculty.

Additional Requirements

- Mandatory BLS training

Attendance

48 hours per week × 48 weeks per year Leave as per institutional policy.

Coursework Requirements

- Fulfil attendance criteria as per departmental/hospital policy
- Complete logbook with required sign-offs
- Publish the short thesis
- Certificate of Attendance at IARC National Conferences
- Completion of competency checklist (mandatory), countersigned by the HOD/assigned faculty

Exit Examination

On successful completion of the programme, candidates must pass an exit exam consisting of theory and bedside practical evaluation.

9. SUBMISSION OF APPLICATION

Online Application:

The applications should be submitted ONLINE through our website **www.mcc.kerala.gov.in.**

Application Fee:

The application fee is **Rs.1,500/-** (Rupees One Thousand Five hundred only). The application fee shall pay online through the payment gateway system provided in the online application

Selection process:

The selection will be based on an online screening test and/or personal interview.

10. FEE STRUCTURE AND STIPENDS

For all fellowship in Psycho-oncology, Oncology Social Work, Nutritional Oncology and Clinical Research

- **Non-Sponsored Candidates:** An annual fee of ₹15,000 applies, along with a ₹1,000 library fee and a refundable caution deposit of ₹5,000 (Total initial payment: ₹21,000). Non-sponsored candidates will receive a monthly stipend of ₹12,000.
- **Sponsored & International Candidates:** Fee structures for sponsored individuals and candidates from other countries will be determined by the institution as appropriate.

For fellowship in Onco-physiotherapy (A joint venture by MCC (PGIOSR) & JDT Islam College of Physiotherapy)

- A**nnual Tuition Fee:** ₹1, 50,000 per annum (Meritorious candidates are eligible for a ₹50,000 scholarship discount, reducing the tuition to ₹1, 00,000).
- **Additional Fees:** A ₹1,000 library fee and a ₹5,000 refundable caution deposit.
- **Total Initial Payment (with Scholarship):** ₹1,06,000
- **Monthly Stipend:** Selected candidates will receive a stipend of ₹20,000 per month.

For FELLOWSHIP IN ONCORESPIRATORY THERAPY AND PULMONARY REHABILITATION

- **Fee Breakdown:** An annual fellowship fee of ₹18,000 applies, alongside a ₹1,000 library fee and a refundable caution deposit of ₹2,000, bringing the total initial payment to ₹21,000.
- **Stipend:** Candidates will receive a monthly stipend of ₹8,000.

11. FACULTIES

SURGICAL ONCOLOGY	Dr.Satheesan Balasubramanian, M.S. M.Ch. (Surgical oncology) Director & Professor, HoD in Surgical oncology.
	Dr.Nizamuddin.M.P (MS, MCh.), Professor and HOD, Surgical Oncology
	Dr AdarshD . MS (OBG), Additional Professor in Gyn Oncology Dr Sandeep Vijay MS (ENT), Associate Professor Dr Anoop.A MS (ENT), Associate Professor Dr. Bonny Aloysius Joseph (MS, MCh), Associate Professor Dr Ashitha MS (OBG), Associate Professor Dr Raveena Nair(MS ENT) Assistant Professor Dr Shamna Muhammed (MS,MCh)Assistant Professor Dr Parmita Tiwari(OBG), Assistant Professor
ANAESTHESIOLOGY	Dr. Jashma C, DNB, Associate Professor Dr. Joona P, MD, Associate Professor Dr. Roopesh, MD, Assistant Professor Dr. Sonali Opneja, MD, Associate Professor Dr. Namratha, MD, Assistant Professor Dr. Rahul, MD, Assistant Professor
CLINICAL HEMATOLOGY AND MEDICAL ONCOLOGY	Dr.Chandran K. Nair, M.D.,DNB(Int. Medicine), D.M. (Clinical Hematology), Fellowship in Bone Marrow/Peripheral blood Stem cell transplantation(Vancouver, Canada) - Professor and HOD
	Dr.Shoaib Nawaz (MD,DrNB), Assistant Professor
	Dr. Abhilash Menon (MD, DM), Assistant Professor
	Dr.Praveen Shenoy (MD, DM), Professor
	Dr Nandini Devi(MD,DM),Associate Professor
	Dr Arun Krishnan(MD,DM),Assistant Professor
	Dr.Jithin T K (MD, DM), Assistant Professor
	Dr.K G Gopakumar (MD, DM),Assistant Professor
CLINICAL LABORATORY SERVICES AND TRANSLATIONAL RESEARCH	Dr.Sangeetha K Nayanar MD, DNB (Pathology) Professor and HOD
	Dr.Parthiban R, Ph.D Additional Professor, Microbiology
	Dr.SitharaAravind MD (Pathology), Additional Professor
	Dr Mohandoss M MD (Transfusion Medicine), Additional Professor
	Dr Aswathy Krishnan M MD,DNB (Pathology), Associate Professor
	Dr Kandathil Philip Joseph MD,DNB (Pathology), PDCC Assistant Professor
	Dr Anand Narayanan MD (Pathology), Associate Professor
	Dr.Vivek Nair, MD(Pathology), Fellowship in Oncopathology Assistant Professor
	Dr.Deepak Roshan PhD , Associate Professor, Molecular Oncology
	Dr.Vipin Gopinath PhD, Assistant Professor, Cytogenetics
	Dr.Sindhu ER PhD, Associate Professor, Biochemistry
	Dr Sarath KE MD, Assistant Professor, Microbiology
	Dr Anju Kurup, MD, (Transfusion Medicine) Assistant Professor,

RADIATION ONCOLOGY	Dr.Geetha M. MD (Radiotherapy),Professor and HOD Dr Joneetha Jones MD,DNB (Radiotherapy), Additional Professor Dr Greeshma K E DMRT,DNB (Radiotherapy), Associate Professor Dr Arun.P.Narendran MD,DNB (Radiotherapy), Assistant Professor Dr Akhil.P.Suresh MD (Radiotherapy), Assistant Professor Dr Megha Prem MD (Radiotherapy),Assistant Professor Dr Shija Merin DNB (Radiotherapy) ,Assistant Professor
IMAGEOLOGY	Dr Ashish Pavanan,MD (Radiodiagnosis), Assistant Professor Dr Preethi, MD (Radiodiagnosis) , Assistant Professor
PULMONOLOGY	Dr Arya Gopi, MD, DM (Pulmonology), Assistant Professor Dr Dhyana, MD ,DM (Pulmonology), Assistant Professor
PALLIATIVE MEDICINE	Dr Biji M S, Assistant Professor
COMMUNITY ONCOLOGY	Dr Neethu,MBBS,MPH, Assistant Professor Dr Phinse Philip, BDS,MPH,PhD,Assistant professor
CANCER REGISTRY & EPIDEMIOLOGY	Dr Saina Sunilkumar, MBBS,MPH,Lecturer Dr Ratheesan,MSc,MBA,Assistant Professor in Biostatistics Dr. Bindu, M.Sc,Ph.D, Assistant Professor in Biostatistics
CLINICAL RESEARCH & BIOSTATISTICS	Mrs Maya Padmanabhan, MSc,M.Phil, Lecturer in Biostatistics Mr Riyas M.Sc, Lecturer in Biostatistics
PSYCHO-ONCOLOGY	Mrs. Jisha Abraham, M.Sc,M.Phil, Lecturer in Psycho-oncology
ONCOPHYSIOTHERAPY	Faculties from JDT Islam College of Physiotherapy

12. RULES AND REGULATIONS

1) The course is full time. Candidates are expected to perform all types of clinical, research and academic assignments as prescribed by the Academic Council of Malabar Cancer Centre.
2) It is a resident program of post-graduate training
3) Candidate is expected to wear identity card provided by MCC (PGIOSR)
4) **Dress code:** Lady candidates are expected to put up the hair during working hours. She is permitted to wear any decent dress preferably, Saree and churidar. Gentleman candidates should wear formal shoes. White apron is compulsory during working hours
5) **Attendance:** The candidate should mark the attendance in Biometric punching machine and also sign in the register kept in the department.
6) Completion of project work is compulsory for fellowship certification.
7) **Leaves: As per institutional policy**
8) **Accommodation:** Accommodation is the responsibility of the candidate. For lady candidates, if available and formally requested in the Request form, shared room accommodation may be provided in the Nurses hostel. This is not guaranteed and it is not a right of the candidate. If accommodation is provided a nominal rent will be deducted from the stipend. A caution deposit of Rs. 1,000/- should be paid. This is refundable when the candidate vacates the hostel. Gentleman candidate is expected to find an accommodation themselves
9) Candidates should follow the rules and regulations of MCC (PGIOSR).

CONTACTS

For any clarifications and queries, please feel free to contact;

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Any technical queries regarding online applications please contact System Manager, Email: sm@mcc.kerala.gov.in with application Number (Phone: 0490-2399400, 2359881)

MALABAR CANCER CENTRE

(POST GRADUATE INSTITUTE OF ONCOLOGY SCIENCES AND RESEARCH)

(*An autonomous Institution under Government of Kerala)*

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