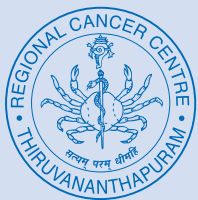


**REGIONAL CANCER CENTRE**  
**THIRUVANANTHAPURAM, INDIA**

**OVER THREE  
DECADES OF  
CHANGING LIVES**

**ANNUAL REPORT 2017-18**



# REGIONAL CANCER CENTRE

Thiruvananthapuram, India

- Established as per Govt. of India letter No. T. 200125/79 of October 1980 as one among 6 such Centres in India.
- Registered under Travancore Cochin Literary Scientific and Charitable Societies Registration Act 1955 vide No. 567/81 dated 19.08.1981.
- Designated as a Science & Technology Centre in health sector by State Government as per G. O. (Rt) No. 1521/85/11 H & FWD dated 18.11.1985.

## VISION

To emerge as a global leader in cancer control.

## MISSION

- Deliver highest quality cancer care at affordable cost.
- Create cancer awareness among public and health professionals.
- Generate trained manpower in cancer control.
- Organize outreach programmes in cancer control.
- Conduct focused cancer research relevant to our society.
- Lead cancer control activities in the state.

# ANNUAL REPORT 2017-2018



REGIONAL CANCER CENTRE  
THIRUVANANTHAPURAM - 695 011, KERALA, INDIA.

## REGIONAL CANCER CENTRE

Thiruvananthapuram - 695 011, Kerala, India.

Telephone : +91 471 2442541  
Director (Direct) : +91 471 2443128  
Fax : +91 471 2447454  
E-mail : [webmaster@rcctvm.gov.in](mailto:webmaster@rcctvm.gov.in)  
Website : [www.rcctvm.gov.in](http://www.rcctvm.gov.in)

Published by  
Director, Regional Cancer Centre, Thiruvananthapuram

# CONTENTS

	Page No.
I Director's review	vi
II RCC Profile at a Glance	ix
III Divisions	
1. Radiation Oncology	1
2. Surgical Services	3
3. Medical Oncology	5
4. Paediatric Oncology	6
5. Pathology	7
6. Imageology	9
7. Nuclear Medicine	10
8. Anaesthesiology	11
9. Radiation Physics	12
10. Clinical Laboratory Services	14
11. Microbiology	16
12. Transfusion Medicine	17
13. Palliative Medicine	18
14. Dental Care	19
15. Nursing Services	20
16. Clinical Services & Medical Records	21
17. Community Oncology	23
18. Cancer Research	25
19. Cancer Epidemiology & Biostatistics	29
20. Library & Information Services	34
21. Information Systems	35
IV Outreach Centres	
i. E.C.D.C., Ernakulam	36
ii. E.C.D.C., Palakkad	36
iii. N.B.R.R., Karunagappally	37
V Multidisciplinary Clinics	
'A' Clinic (Haematological, Lymphoreticular, Bone & Soft tissue Sarcoma)	39
'B' Clinic (Head & Neck)	40
'C' Clinic (Breast & Central Nervous System)	41
'D' Clinic (Gynaec, Genitourinary & Others)	42
'E' Clinic (Chest & Gastrointestinal)	43
'F' Clinic (Paediatric Oncology)	44
'G' Clinic (Thyroid)	45
VI Public Relations Activities	46
VII Honours, Awards and Recognitions Received	47
VIII Functions, Workshops & Conferences Organised	48
IX Distinguished Visitors/Talks Delivered	48
X Gallery	49
XI Conferences Attended and Papers Presented	50
XII Ongoing Research Projects	61
XIII Publications	77
XIV Administration, Standing Committees & Right to Information Act	86
XV Accounts	101
XVI Abbreviations Used	118
XVII Acknowledgements	119

# GOVERNING BODY

1. Shri. Pinarayi Vijayan  
Hon'ble Chief Minister of Kerala  
Chairman
2. Smt. K.K.Shailaja Teacher  
Hon'ble Minister for Health and Social Justice  
Government of Kerala  
Vice-Chairman
3. Shri. Rajeev Sadanandan, IAS  
Additional Chief Secretary to Government  
Health & Family Welfare Department  
Government of Kerala  
Alt.Vice-Chairman
4. Shri. Minhaj Alam, IAS  
Secretary, Finance (Resources)  
Finance Department, Government of Kerala  
Member
5. Dr.V.S. Senthil, IAS  
Additional Chief Secretary to Government  
Planning & Economic Affairs Department  
Government of Kerala  
Member
6. Shri. C.K. Mishra, IAS (Till 15 Oct 2017)  
Secretary to Government  
Ministry of Health and Family Welfare, Government of India  
Member
- Smt. Preeti Sudan, IAS (From 16 Oct 2017)  
Secretary to Government  
Ministry of Health and Family Welfare, Government of India  
Member
7. Dr. Jagdish Prasad  
Director General of Health Services  
Ministry of Health and Family Welfare, Government of India  
Member
8. Dr. Asha Kishore  
Director, Sree Chitra Tirunal Institute for Medical Sciences & Technology,  
Thiruvananthapuram  
Member
9. Dr. S.C. Gupta  
'Vidya', Pulayanarkotta Road, Thiruvananthapuram  
Member
10. Dr. Remla Beevi  
Director of Medical Education, Thiruvananthapuram  
Member
11. Dr. Thomas Mathew  
Principal, Government Medical College Thiruvananthapuram  
Member
12. Dr. Paul Sebastian  
Director, Regional Cancer Centre, Thiruvananthapuram  
Convener

# EXECUTIVE COMMITTEE

- |    |  |          |
|----|--|----------|
| 1. | Shri. Rajeev Sadanandan, IAS<br>Additional Chief Secretary to Government<br>Health & Family Welfare Department<br>Government of Kerala | Chairman |
| 2. | Shri. Minhaj Alam, IAS<br>Secretary, Finance (Resources)<br>Finance Department, Government of Kerala                                   | Member   |
| 3. | Shri.V.S. Senthil, IAS<br>Additional Chief Secretary to Government<br>Planning & Economic Affairs Department<br>Government of Kerala   | Member   |
| 4. | Dr. Remla Beevi<br>Director of Medical Education<br>Thiruvananthapuram   | Member   |
| 5. | Dr.Thomas Mathew<br>Principal, Government Medical College<br>Thiruvananthapuram  | Member   |
| 6. | Dr. Paul Sebastian<br>Director, Regional Cancer Centre<br>Thiruvananthapuram   | Convener |

# DIRECTOR'S REVIEW



The Regional Cancer Centre, Thiruvananthapuram (RCC), is an autonomous scientific institution sponsored jointly by the Government of Kerala and the Government of India receiving financial assistance from both. The crusade against cancer is a relentless one, and the Centre always upholds it with expertise and state-of-the-art technologies. Our voyage crossed another eventful period of accessible and affordable cancer care to all sections of the society, especially the under-privileged and needy.

Each year, the count of patients is on the rise. During the period under report, which also marked the 37th year of establishment, the Centre registered a record number of 16,443 new patients and seen 2,48,887 review cases. A number of 13,554 new patients availed treatment worth Rs. 76.52 crores through various State and Central Government schemes such as Cancer Suraksha, Chis Plus, Karunya Benevolent Fund, Sukrutham, Thalolam, Scheduled Tribe Patient Fund, Snehasanthwanam for Endosulfan Victims, Prime Minister's Relief Fund, Health Minister's Rashtriya Arogya Nidhi, Health Minister's Discretionary Fund and Health Minister's Cancer Patient Fund. The Multi-Disciplinary Tumour Board (MDTB) system, in its second year of introduction, ensured quality of cancer care through collaboration and sharing of best practices.

Institutional infrastructure was upgraded to optimise diagnostic and therapeutic services. Anaesthesiology division acquired ICU ventilators, portable colour doppler ultrasound machines, video laryngoscopes and bronchoscopes. New Dexa scan system was commissioned in Imageology division and the Radiation Oncology division started Total Skin Electron Therapy (TSET) to improve the effects and to limit the complications following radiotherapy.

The Centre was linked to Digital Nerve Centre (DiNC) facility for IT-enabled patient management system to facilitate appointments for consultation, send alerts for follow ups and to manage medical records. This patient friendly initiative is supported by Tata Trust and Tata Consultancy Services.

The Centre ensured continued thrust on awareness, prevention and early diagnosis of common cancers. The cancer control at community level was met through 507 cancer detection programmes and 292 cancer education programmes. The Centre had joined hands with many institutions of repute in the State to observe days of importance for raising cancer awareness, prevention and control. RCC has been playing a key role in generating trained manpower in cancer management through trainer-trainee programs and academic programmes at superspeciality, postgraduate, post-doctoral, fellowship, graduate and diploma levels. In addition to the existing 20 such programmes, advanced training in Microbiology was started during this period.

The Centre is an essential part of National Cancer Registry Programme for ensuring quality data for planning cancer control programmes in the State. The first three year (2012 – 2014) report on cancer incidence and mortality in Thiruvananthapuram district, which covered a population of 3.3 million, was published during this period. This registry data has been used for planning in cancer control and epidemiological research in Kerala. The Centre had already initiated steps for a Cancer Registry covering the entire state of Kerala.

The Centre is credited with a good number of scientific publications as an academic outcome of faculty, residents and researchers. A total of 166 scientific publications during the period covered 104 journal articles, 38 conference papers in addition to a share of chapters in books, academic dissertations and theses. Out of the 182 ongoing research projects undertaken by the Centre, 46 were extramurally funded projects.

The achievements of dedicated and talented faculty and staff were acknowledged through awards and honours. Smt. Geethakumari BS, Head Nurse won the prestigious 'Florence Nightingale' award, a national honour for nurses for exemplary services. One Research Scholar from the Cancer Research Division was awarded PhD by University of Kerala for the thesis 'Study of the significance of miRNA expression pattern in oral carcinoma' and one faculty from the Dental Care Division received UICC technical fellowship for 'Advanced training in maxillofacial prosthetic rehabilitation services for head and neck cancer patients' at National Dental Centre, Singapore.

Regular in-house academic events were supplemented with a handful of programmes like International Workshop on Simulation Based Education, International Workshop on Precision Radiotherapy in Paediatric Oncology, IARC sponsored training programme in Basic Medical Statistics for Clinicians, CME on Airway management, and KUHS updates on advances in oncology. Dr. Padma Shastry, Principal Scientist at National Centre for Cell Sciences, Pune, Dr. Malcolm A. Moore, Ex-Chief Editor of Asia Pacific Journal of Cancer Prevention, Dr. M.K.C. Nair, Hon'ble Vice Chancellor, Kerala University of Health Sciences and Dr. M.V. Pillai, Clinical Professor of Oncology, Thomas Jefferson University, Philadelphia were the distinguished visitors during the period.

Thanks to at least a dozen organisations for extending philanthropic and social intervention services to cancer-survivors and families. All the support groups, especially Asraya, Care Plus and Pratyasha provided a platform for the needy with new hopes of life.

I have taken charge as Director of the Centre on 15th October 2018 and I am pleased to present this report on various Divisions, Clinics, Peripheral Centres and audited accounts of RCC during the period 2017-18.

Dr. Paul Sebastian  
Director (till 24th August 2018)



Dr. Rekha A. Nair  
Director

# RCC Profile at a Glance

- 16,443 new cases
- 2,48,887 review cases
- 884 daily average patient visits
- 11,696 in-patient admissions
- 52,964 pathology reports
- 63,111 imaging studies
- 72,097 nuclear medicine studies
- 4,05,196 clinical laboratory investigations
- 33,915 microbiology investigations
- 38,579 units blood products issued
- 2670 cytogenetics, FISH & RT-PCR based diagnostic studies
- 7071 patients were treated with external radiotherapy
- 1760 brachytherapy procedures
- 6271 surgical and 2243 endoscopic procedures
- 11,406 patients were administered chemotherapy
- 36 bone marrow transplantations
- 33 residents in Medical, Paediatric and Surgical Oncology superspeciality courses
- 50 residents in Anaesthesia, Pathology, Radiodiagnosis and Radiotherapy postgraduate courses
- 30 PhD scholars
- 507 cancer detection programmes and 292 cancer education programmes
- 182 research projects

## Major Diagnostic & Treatment Facilities

### DIAGNOSTIC FACILITIES

#### Pathology

- Surgical pathology
- Cytopathology
- Haematopathology
- Molecular pathology: Flow cytometry, FISH, PCR, RT-PCR

#### Imageology

- MRI
- Multidetector CT
- Digital mammography with prone biopsy table & mammotome
- Stereotactic mammography unit
- Ultrasound machines
- Xray units
- Computed radiography system
- Picture Archiving and Communication System
- Dexa Scan

## Nuclear Medicine

- PET/CT Scan
- SPECT Dual head gamma camera
- Chemiluminescence assay system

## Clinical Laboratory

- Beckman coulter LH 750 5-part haematology analyser
- LH 780 Fully automated 5-part haematology analyser
- VITROS 5600 integrated system
- VITROS 5.1 FS chemistry system
- Helena SAS 3/SAS 4 fully automated electrophoretic system
- Amax destiny plus fully automated coagulation analyser (TCoag)
- ABL flex blood gas analyser (Radiometer)
- Shimadzu HPLC system
- Heraeus megafuge 16R refrigerated centrifuge
- Deep freezers

## Transfusion Medicine

- NACO approved fully automated blood bank
- Blood irradiator
- Cryofuge
- Platelet apheresis
- Plasma thaw bath
- Automatic component extractor T-ACE, for preparation of leucoreduced products.
- Fully automated ELISA machine
- Automated haematology analyser
- Hemonetics cell separator

## Microbiology

- Automated blood culture system (BacT/Alert)
- Automated identification and sensitivity testing (VITEK)
- Enzyme Linked Fluorescent Assay (VIDAS)
- Microscopy, routine culture & sensitivity tests, fungal culture, AFB culture, Surveillance culture

## Cancer Research

- Cytogenetic studies
- FISH
- RT-PCR

## TREATMENT FACILITIES

### Radiation Oncology

- Linear accelerators
- Telecobalt unit
- IGRT, IMRT/Rapid Arc, SRS/SRT, SBRT, 3D conformal RT & portal imaging
- Total Body Irradiation (TBI), Total Skin Electron Therapy (TSET)
- Image guided brachytherapy

- Digital simulator & CT simulator
- Treatment planning systems
- HDR brachytherapy
- Quality assurance equipment

### **Surgical Services**

- Seven modern operation theatres
- Operating microscope & video endoscopes
- Minimally invasive surgery
- Limb salvage surgery
- Sentinel lymph node biopsy
- State-of-the-art ICU
- Mobile C arm image intensifier
- Laser for microlaryngeal surgery
- Precision drill & saw system
- Rigid video endoscope for head and neck cancers
- High definition laparoscopic unit

### **Medical Oncology**

- Facilities to administer chemotherapy for all types of cancers
- Four bedded bone marrow transplantation unit
- High dependency chemotherapy ward

### **Paediatric Oncology**

- 50 bedded exclusive Paediatric Oncology ward
- A four bedded state-of-the-art ICU

### **Palliative Medicine**

- Availability of oral morphine in liquid and capsule forms
- Inpatient service and hospice care
- Home care service, rehabilitation, support groups
- Networking of palliative care services throughout Kerala

## **DIAGNOSTIC & TREATMENT FACILITIES ADDED DURING THE PERIOD**

### **Anaesthesiology**

- ICU ventilators (2 nos.), Video laryngoscopes (2 nos.), Video bronchoscopes (2 nos.) and Portable colour Doppler ultrasound machine (1 no.).

### **Imageology**

- DEXA scan

### **Radiation Oncology**

- Total Skin Electron Therapy (TSET)

## PATIENT WELFARE SCHEMES

RCC has implemented several schemes for providing economic assistance, free food, free drugs and various rehabilitation facilities for patients and their families through programmes supported by Central and State governments and non-governmental agencies. Patients received assistance from schemes such as Prime Minister's Relief Fund, Rashtriya Arogya Nidhi (RAN), Health Minister's Discretionary Fund, Health Minister's Cancer Patient Fund, Cancer Suraksha Scheme, Comprehensive Health Insurance Scheme (CHIS Plus), Karunya Benevolent Fund, Sukrutham, Thalolam, Scheduled Tribe Patient Fund and Snehasanthwanam for Endosulfan Victims. These schemes provided benefit to 13554 new patients to avail treatment worth Rs. 76.52 crores during the period under report. In addition, patients got benefitted from schemes initiated by RCC such as Cancer Care for Life (CCL) scheme, Free Drug Bank, Free Food, and Pratyasha for paediatric patients and also the financial support from Indian Cancer Society.

### State and Central Government Schemes (1 April 2017 to 31 March 2018)

Scheme	Patients enrolled during the period (New cases)	Amount spent during the period (Lakhs)	Total no. benefited up to 31 March 2018	Total Amount Spent (Lakhs)
<b>State Government Schemes</b>				
Cancer Suraksha Scheme (Govt. of Kerala)	542	670.44	4928	4006.77
CHIS Plus (Govt. of Kerala)	6017	1687.46	33159	7985.27
Karunya Benevolent Fund (Govt. of Kerala)	4425	3236.83	21664	14020.76
Sukrutham (Govt. of Kerala)	2270	1792.78	8310	4739.62
Thalolam (Govt. of Kerala)	8	3.53	91	25.71
Scheduled Tribe Patient Fund (Govt. of Kerala)	27	19.49	330	222.50
Snehasanthwanam for Endosulfan Victims (Govt. of Kerala)	8	1.37	44	34.73
<b>Central Government Schemes</b>				
Prime Minister's Relief Fund	220	194.48	1156	1069.69
Health Minister's Rashtriya Arogya Nidhi (RAN)	-	18.68	2054	788.70
Health Minister's Discretionary Fund	1	1.93	15	9.00
Health Minister's Cancer Patient Fund (HMCPF-CSR Scheme)	36	25.18	37	28.36
<b>Total</b>	<b>13554</b>	<b>7652.17</b>	<b>71788</b>	<b>32931.10</b>

## RCC Initiatives

In addition to the Government supported schemes, RCC provides support to patients and families through various other schemes as detailed below:

### 1. Cancer Care for Life (CCL) Scheme

173 patients under the scheme reported for treatment during the period. The scheme stopped enrolling new members in August 2014.

### 2. Free Drug Bank

The Free Drug Bank functions according to specific guidelines and is monitored by a committee constituted by the Director, RCC. The drug bank provided full or partial help to 3440 patients during the reporting period.

### 3. Free Food ('Akshayapatram')

Free food was provided to 6750 patients belonging to low socio-economic status during the report period. This was possible due to funds donated by many philanthropic organizations.

### 4. Support for Paediatric patients

'Pratyasha', a voluntary group working in collaboration with Paediatric Oncology division gave financial and psychosocial support to children and their families.

### Indian Cancer Society Support Scheme

RCC was selected as one of the five cancer centres across India for receiving financial support from the Indian Cancer Society for treatment of cancer. During the report period, 238 patients including 41 new patients received support worth Rs.310.53 lakhs.

## HUMAN RESOURCE DEVELOPMENT

RCC has been playing a key role in generating trained manpower in cancer control through conducting superspeciality, postgraduate, post-doctoral, fellowship, graduate and diploma level academic programmes. In addition to this, over 600 post graduate medical and life science students from different institutions all over the country came for rotation postings and project training as part of their curriculum.

Course name	Intake capacity	Duration
MCh (Surgical Oncology)	6	3 Yrs
DM (Medical Oncology)	3	3 Yrs
DM (Paediatric Oncology)	2	3 Yrs
MD (Radiotherapy)	8	3 Yrs
MD (Anaesthesia)	6	3 Yrs
MD (Pathology)	2	3 Yrs
Fellowship in Head & Neck Surgical Oncology	2	2 Yrs
Fellowship in Gynae-Surgical Oncology	1	2 Yrs
Post Doctoral Certificate Course in Oncopathology	4	1 Yr
Post MSc Diploma in Radiological Physics	4	2 Yrs
Doctoral Research Programme	30	
Quality Excellence Programme in Pathology	6	1 Yr
Advanced Training in Diagnostic Imaging	2	1 Yr
Post-basic Diploma in Oncology Nursing	20	1 Yr
Cytotechnologist	4	1 Yr
Advanced Training in Clinical Laboratory Technology	8	1 Yr
Advanced Training in Blood Banking & Transfusion Technology	4	1 Yr
Advanced Training in Microbiology	5	1 Yr
Histotechnology	6	9 Months
Cytotechnician	6	6 Months
Medical Documentation Training Programme	10	1 Yr

# DIVISIONS



# RADIATION ONCOLOGY

Ramadas K

Professor & Head

---

**Professors:** Francis V. James, Beela Sarah Mathew

**Additional Professors:** Aswin Kumar, Sivanandan CD, Rejnish Kumar R, Susan Mathews, Kainikkal CT

**Associate Professors:** Asha Arjunan, Sajeed A, Arun Sankar S, Roshni S

**Assistant Professors:** Malu Rafi, Rajeev KR, Geethi MH, John Joseph, Priya Balakrishnan, Lijeesh AL



The Division, which has been following a site-wise clinic system, was responsible for the treatment including radiotherapy and all forms of systemic therapy of patients diagnosed with solid tumours. Equipped with five Linear Accelerators and one

Tele-cobalt Unit, more patients received CT-based precision radiotherapy including IMRT/IGRT, SRS, SBRT, TSET and Image guided Brachytherapy. PET-CT based planning is also being increasingly utilized.

## Clinical services

Include external radiotherapy for 7071 patients and 1760 brachytherapy procedures. Total Skin Electron Therapy (TSET) was introduced during the reporting period.

Specialised Radiotherapy Services	
Services	Number
3DCRT	1928
IGRT/IMRT	619
SRS+SRT	33
Total brachytherapy procedures	1760
Extra-corporeal radiation	6

## Academic activities

- MD Radiotherapy programme with an annual intake of eight seats
- Organized International Workshop on Precision Radiotherapy (IWPR 2017) on Paediatric Oncology, 2-3 December 2017
- Medical statistics for Clinicians, training course by IARC & RCC, 8-10 December 2017. (In association with Division of Cancer Epidemiology and Biostatistics)
- Short term training was imparted to Postgraduate students of various medical colleges including those of Government Medical College, Thiruvananthapuram

# SURGICAL SERVICES

Shaji Thomas

Additional Professor & Head

Professor: Paul Sebastian

Additional Professors: Bipin T.Varghese, Paul Augustine, Chandramohan K, Elizabeth Mathew Iype, Balagopal PG (on deputation), Rema P, Madhu Muralee, Arun Peter Mathew (on leave), Kurian Cherian, Suchetha S

Assistant Professors: Nebu Abraham George, Wagh Mira Sudam, Rexeena V. Bhargavan, Siva Ranjith J, Bharath VM (Temporary), Deepak Janardhan (Temporary)

Senior Residents: Shrijith MB, Safeer Mohammed



Surgical Oncology Division has been redesignated as Department of Surgical Services as per the Executive Committee resolution number 7, dated 31 August 2017. As per this resolution, the Department has three separate divisions viz. Division of Surgical Oncology, Division of Head and Neck Surgery and Division of Gynaecological Oncology.

The department provided specialized site wise surgical expertise for primary treatment of majority of solid organ cancers. The post-operative wards were renovated with state-of-the-art beds, monitors and accessories and started minor surgeries in procedure rooms attached to the site specific clinics so as to avoid any delay. New endoscopy units were procured and endoscopy suit was renovated.

## Surgical & Endoscopic procedures

Major Procedures	
Sites	Number
Head and Neck	1528
Breast	1379
Gastrointestinal & Thoracic	606
Gynaecologic	365
Genito-urinary	123
Bone and sarcoma	197
Miscellaneous	265
Total	4463
Minor Procedures	
Procedure	Number
Minor cases	1765
LEEP	43
Total	1808
Endoscopy Procedures	
Procedure	Number
Nasopharyngolaryngoscopy Nasal & DL scopy	804
Bronchoscopy	160
Oesophagoduodenoscopy	773
Oesophageal dilatation + stenting	20
Colonoscopy	446
Colposcopy	40
Total	2243

## Academic activities

- MCh Surgical Oncology programme with an annual intake of six seats
- Fellowship in Head and Neck Surgical Oncology with an annual intake of two seats
- Fellowship in Gynae-Surgical Oncology with an annual intake of one seat
- Training for MS, MD and MDS students from various Medical Colleges.
- Organized PG QUEST 2018: An exam oriented teaching programme for the MCh/DNB Surgical Oncology candidates across the country

# MEDICAL ONCOLOGY

Geetha N

Professor & Head

**Additional Professors:** Sreejith Nair, Prakash NP

**Assistant Professors:** Anoop TM, Lakshmi Haridas, Rajitha L, Deepa Susan Joy Philip, Pranab K. Prabhakaran, Rona Joseph

**Resident Medical Officer:** Lali VS

The Division is responsible for the diagnosis and management of haematological and lymphoreticular malignancies, sarcomas and other solid tumours where intensive chemotherapy is indicated. Medical Oncologists are also responsible for the diagnosis and management of other solid tumours under the C, D and E clinics. Dose intense protocols were used for the treatment of all leukaemias and lymphomas.

2359 new cases and 44067 review cases were seen in the A-Clinic during the report period. In the solid tumor clinics, 1100 new C-clinic cases, 825 new D-clinic cases and 1400 new E-clinic cases were treated by the medical oncology

team. About 210 cases of solid tumours were admitted for administration of high profile chemotherapy and management of emergencies and complications under C, D and E clinics. 2831 patients were admitted for the administration of intensive chemotherapy and management of emergencies and complications. New patients with chronic myeloid leukaemia enrolled in the Novartis Patient Assistance (NOVA) programme were given imatinib free of cost.

In the BMT unit, stem cell transplantation following high dose chemotherapy was performed for 36 patients.



## Academic Activities

- DM Medical Oncology programme with an annual intake of three seats
- Postgraduate students in General Medicine, Transfusion Medicine and Radiation Oncology were given training in Medical Oncology.

# PAEDIATRIC ONCOLOGY

Kusumakumary P (Till 31.08.2017)

Professor & Head

Priyakumari T (From 01.09.2017)

Additional Professor & Head

**Assistant Professors:** Anu Ninan (on leave), Manjusha Nair, Binitha R, Guruprasad CS



The Division provided comprehensive cancer treatment for childhood malignancies up to the age of 14 years. 602 new cases and 22834 review cases were seen during the report period. Children are admitted for diagnosis and administration of chemotherapy including high dose chemotherapy. A well-equipped paediatric oncology ICU with state-of-the-art facilities is also functioning for providing intensive care to critically ill children. It has two modern ventilators with all advanced facilities, including NAVA (Neurally Adjusted Ventilatory Assist).

## Academic activities

- DM Paediatric Oncology programme with an annual intake of two seats
- Regular training to the postgraduates of RCC, SAT Hospital, Thiruvananthapuram and other government/private Medical Colleges

## Cultural activities

Various cultural activities were organized for children and their parents during festivals of Onam, Christmas, New Year, Vishu, Deepavali and Children's Day.

### Patient Statistics

Cases	Number
Acute lymphoblastic leukaemia	194
Acute myeloid leukaemia	32
Chronic myeloid leukaemia	6
Brain tumour	74
Osteosarcoma	22
Ewing's sarcoma/Primitive Neuroectodermal Tumour (PNET)	20
Rhabdomyosarcoma	14
Hodgkin's lymphoma	17
Non-Hodgkin's lymphoma	18
Wilms' tumour	17
Neuroblastoma	30
Hepatoblastoma	9
Germ cell tumour	22
Retinoblastoma	7
Soft tissue sarcoma	9
Nasopharyngeal carcinoma	2
Langerhans cell histiocytosis	22
Thyroid	11
Hemophagocytic Lymphohistiocytosis	4
Miscellaneous	28
Non malignant	44
<b>Total</b>	<b>602</b>

# PATHOLOGY

Jayasree K

Professor & Head

---

**Additional Professors:** Rekha A. Nair, Anitha Mathews, Thara Somanathan, Nileena Nayak, Preethi TR

**Associate Professors:** Anila KR, Renu S

**Assistant Professors:** Priya Mary Jacob, Jayasudha AV, Neelima Radhakrishnan, Sindhu Nair P, Rari P. Mony, Simi CM

**Senior Residents:** Jayapriya G, Rani R

The Division provided diagnostic services such as Surgical Pathology, Cytopathology and Haematopathology along with advanced tests such as immunohistochemistry, FISH, flow cytometry and frozen section diagnosis. Second opinion was provided for tissue samples referred from all over Kerala

and neighbouring States. Faculty and students of the division were actively engaged in community oriented cancer control programmes including screening and early detection of cancers.



## Diagnostic Services

Surgical pathology	Cytopathology	Haematopathology	Total
22017	22,448	8499	52,964

Immunohistochemistry (Surgical pathology + Cytopathology + Haematopathology)	Frozen section	FISH	Flow cytometry	Total
36,645	1,567	33	778	39,023

### Surgical Pathology

Specimens from RCC	Specimens for Review	Specimens for Second Opinion	Total
13,595	7,621	801	22,017

### Cytopathology

FNAC + Fluids	Cervical smear	Sputum	Total
8,800	13,648	1,374	22,448

### Haematopathology

Bone marrow	Peripheral smear	Slide review	Total
4,512	3,884	103	8,499

## Academic activities

- MD Pathology programme with an annual intake of two seats, Post Doctoral Certificate Course (PDCC) in Oncopathology, Quality Excellence Programme in Pathology, Cytotechnology, Histotechnology and Cytotechnician courses.
- Training given to postgraduate/superspeciality students of RCC, MD Pathology students from various Medical Colleges, MDS Pathology students from Dental Colleges, MSc (MLT), BSc (MLT) students and Histotechnology/ Immunohistochemistry trainees.
- The division organized, 10th TCS Annual Meeting and Flow Cytometry Workshops: Applications of flow cytometry in health and disease, 28-31 October 2017, jointly with SCTIMST and RGCB Thiruvananthapuram. (Organising chairperson: Rekha A. Nair)



# IMAGEOLOGY

Ramachandran K  
Professor & Head

Additional Professor: Venugopal M

Associate Professors: Jiji V, Sumod Mathew Koshy

Assistant Professors: Anil Prahladan, Anitha Sen, Priya A, Jubiee Raj, Renuka G

Senior Residents: Jeslean Jose, Vijayakumary B



The Division has a DR X-ray unit, two 500 mA X-ray machines converted to CR, six portable 60 mA X-ray units, three colour doppler ultrasound scanners, mammography X-ray machines with stereotaxy, 16 slice Multi-Detector CT, 1.5T MRI scanner with MR spectroscopy, digital mammography with prone biopsy table, and a state-of-the-art doppler ultrasound machine with facility for elastography contrast studies. There is facility for MRI under anaesthesia. A number of 1764 non vascular interventions were done during the period. A Dexa scan machine was added to the diagnostic facilities during the period under report. All the investigations were reported through the Picture Archiving and Communication System.

## Academic activities

One year training programme in 'Advanced Training in Diagnostic Imaging' with an annual intake of two seats.

Diagnostic & Interventional Studies	
Investigations	Number
Plain X-rays	28240
Barium studies	213
Ultrasound scans	10353
Ultrasound guided intervention (FNA+Biopsy)	1182
Ultrasound guided prostatic biopsy	69
Doppler studies	613
Digital mammography	5171
CT scans	13406
CT guided aspiration (FNA)	582
MRI scans	3282

# NUCLEAR MEDICINE

Pradeep VM

Professor & Head

Additional Professor: Sreekumar A



Nuclear Medicine Division provided therapeutic and diagnostic services involving open radioactive sources. The Division has facilities for imaging (PET-CT and Dual head SPECT Gamma camera) as well as for therapy (thyrotoxicosis and high dose therapy for thyroid cancer).

Diagnostic & Clinical Services	
Investigations/Therapy	Number
PET Scan	1368
SPECT Gamma camera imaging	5168
Radio immunoassay	65561
Thyroid cancer therapy	578
Thyrotoxicosis therapy	247

# ANAESTHESIOLOGY

Rachel Cherian Koshy  
Professor & Head

**Additional Professors:** Mary Thomas, Venugopal A, Mallika Balakrishnan, Sudha P, Viji S. Pillai

**Associate Professors:** Deepthi J. Prabhu, Bhagyalakshmi Ramesh, Rajasree O

**Assistant Professors:** Subha R, Frenny Ann Philip, Radhikadevi B

Besides providing good quality anaesthesia for all major oncosurgical and emergency cases, the division provided anaesthesia for minor therapeutic and diagnostic procedures such as MRI, Radiotherapy, Brachytherapy, and CT guided biopsies. Two ICU ventilators, two Video laryngoscopes, two Video bronchoscopes and one Portable colour Doppler ultrasound machine were acquired during the reporting period.

## Academic activities

- MD Anaesthesia programme with an annual intake of six seats
- In house Basic Life Support and Advanced Cardiac Life Support training for new residents, 3-4 November 2017
- Basic Life Support training to gynaecology consultants, dental surgeons, radiographers, and dental operating room assistants from outside the Centre, 17 February 2018
- Organized 'International Workshop on Simulation Based Education', 30 July-2 August 2017. (Partially supported by Infosys Foundation)
- Organized the CME, 'IMPACT VISTA 2018: Vision to the Airway', 20-21 January 2018. (Supported by an educational grant of M/s. Karl Storz). (Venugopal M: Organising secretary)
- Three weeks observership training was provided to a student from Sweden



## Anaesthetic Services

### Pre-anaesthesia clinic

New cases	6138
Review cases	7928
<b>Total</b>	<b>14,066</b>

### Anaesthesia Techniques

Total Intravenous Anaesthesia	695
GA+Epidural	833
GA+Controlled Ventilation	2746
GA+Spontaneous Ventilation	111
Epidural block	23
Combined spinal + epidural	142
Subarachnoid Block	85
Monitored Anaesthesia Care	26
Endotracheal tubes	3387
Supraglottic airway devices	343
Plexus & other blocks	28
GA + Block	194
Anaesthesia for children (MRI, Radiation therapy, CT simulation)	693
Anaesthesia for brachytherapy	40
Anaesthesia for OGD scopy	7
Central venous access (Non-surgical patients)	38

### Surgical ICU

Patients on ventilator	210
Total ventilator days	499

### Acute pain service

Patients with epidural catheters	998
Epidural days	2500

# RADIATION PHYSICS

Raghu Ram K. Nair (Till 28.02.2018)

Professor & Head

Raghu Kumar P (From 01.03.2018)

Additional Professor & Head

Additional Professor: Saju B

Associate Professor: Thayal Singh Elias

Assistant Professors: Zhenia Gopalakrishnan, Divya KT (on leave), Giri Purushothaman, Debjani Phani, Shaiju VS, Sharika V. Menon, Sarin B

Calibration and quality assurance of radiotherapy equipment, treatment planning and quality assurance for 3DCRT, IMRT, IGRT, SRS, SRT, SBRT, dose computation, radiation safety in Radiation Oncology, Imageology and Nuclear Medicine divisions, participation in intercomparison and external verification of dose output

of treatment machines using TLD in BARC/IAEA/Equal ESTRO programmes, daily maintenance, checking and repair of all teletherapy/brachytherapy equipment, and intra-operative, intraluminal and mould brachytherapy using Microselectron (V3) HDR were the major activities of the division.



## Patient Services

Treatment given	Number
<b>2D Radiotherapy</b>	
CT Based Planning	1872
Conventional Planning	2607
<b>3DCRT</b>	1928
<b>IMRT+IGRT</b>	619
<b>SRS+SRT</b>	33
<b>SBRT</b>	05
<b>TSET</b>	01
<b>ECRT</b>	06
<b>Total</b>	<b>7071</b>
<b>Brachytherapy Procedures (Microselectron HDR)</b>	
Gynaecologic	1747
Oesophagus	06
Others	07
<b>Total</b>	<b>1760</b>
<b>Simulation</b>	
CT simulation	5754
Conventional simulation	5316

## Academic activities

- Two years training programme in 'Post MSc Diploma in Radiological Physics' with an annual intake of four seats.
- Providing class room and onsite training to medical/paramedical students from various medical colleges, private institutions and various departments of RCC.

Ongoing Doctoral Research Programmes			
Sl. No.	Research Scholar	Title of Study/University	Guide
1	Zhenia Gopalakrishnan	Evaluation of radiotherapy treatment planning systems and different dose calculation algorithms for the management of cancer/University of Kerala	Dr. Raghu Ram K. Nair
2	Divya KT	Evaluation of patient specific dosimetric quality assurance tools in radiotherapy/ University of Kerala	Dr. Raghu Ram K. Nair
3	Shaiju VS	Design and fabrication of a head phantom for dosimetric evaluation of radiotherapy treatment plans/Meenakshi Academy of Higher Education and Research	Dr. Raghu Ram K. Nair
4	Debjani Phani	Design and development of quality assurance protocol for ultrasound imaging/ Meenakshi Academy of Higher Education and Research	Dr. Raghu Ram K. Nair
5	Sharika V. Menon	Mathematical evaluation and phantom designing of radiotherapy treatments/ Bharathiar University	Dr. Raghukumar P
6	Sarin B	Application of Monte Carlo Simulation in Radiotherapy/ Noorul Islam University (NIU)	Dr. Bindhu (Dept. of Physics, NIU)

# CLINICAL LABORATORY SERVICES

Raveendran Pillai K  
Additional Professor & Head



The Division is handling routine and specialized laboratory investigations of blood and other body fluids of both inpatients and outpatients by performing analysis, reviewing and interpreting results. The Division offers comprehensive clinical laboratory services in high volume chemistry, haematology and coagulation, serology for infectious diseases, therapeutic drug monitoring, blood gas analysis, automated serum and urine electrophoresis and immunofixation electrophoresis. Phlebotomy section is handling an average 600 outpatients per day and tests are reported with appreciable turnaround time of 60 minutes or less through the implementation of bidirectional interfacing of all major analyzers. Provided more than 100 different test assays on immunosuppressant drug monitoring for bone marrow transplant patients, methotrexate drug level and 24-hour urine protein estimations.

The laboratory processed 2,08,602 haematology samples, 1,84,814 biochemistry samples, 11,780 urine samples and has reported 2.36 million tests in the period under report.

The laboratory also provided services for therapeutic drug monitoring for various drugs and serology for HIV and Hepatitis. Cases were also referred to the division for special investigations on biochemistry, electrophoresis and immunofixation electrophoresis from government and private hospitals.

The division has provided technical support to Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram for establishing clinical laboratories in Medical College, Thiruvananthapuram and other major government hospitals in Thiruvananthapuram district.

## Quality assurance

The division has been a participant in the External Quality Assurance Services (EQAS) of Bio-Rad Laboratories, USA for haematology, clinical chemistry and coagulation. Daily internal quality control is also carried out for haematology, clinical chemistry and coagulation parameters.

Investigations done	
Investigations	Number
Biochemistry	1232437
Haematology	988140
Coagulation parameters	16404
Urinalysis	58900
Cerebrospinal Fluid (Sugar & Protein)	542
HbA1c	346
Lipid profile	2499
Creatinine clearance test	1872
24 hour urine protein	1093
Methotrexate assay	1618
Cyclosporin assay	90
Serum Immunoglobulin Assay (IgG, IgA & IgM)	8274
Free Kappa	2670
Free Lambda	2670
Serum electrophoresis	3044
Immunofixation electrophoresis	2724
Blood gas (ABG)	1965
<b>Serology</b>	
HIV	14651
HBsAg	14761
HCV	14783

## Academic activities

- One year training programme in 'Advanced Training in Clinical Laboratory Technology' with an annual intake of eight seats
- Short term training programmes for undergraduates and postgraduates of Biochemistry, Biotechnology, Biomedical and Medical Laboratory Technology

Training provided	
Trainees	Number trained
MSc Medical Biochemistry (MG University)	5
MSc MLT (Pathology) (Medical College, Thiruvananthapuram)	4
BSc Microbiology (Calicut University)	2
BSc Medical Biochemistry (Kannur University)	1
BSc MLT (MG University)	19
<b>Total</b>	<b>31</b>



# MICROBIOLOGY

Swapna R. Nath

Additional Professor & Head

Assistant Professor: Sagila SG



The division continued to provide services in Bacteriology, Mycology, Parasitology, Mycobacteriology and Serology. The division also supported the laboratory needs of infection control programmes in RCC. The annual antibiograms provided by the Division helps the clinicians to choose the empirical antibiotics for patients.

## Academic activities

- One year training programme in 'Advanced Training in Microbiology' with an annual intake of five seats
- Classes for doctors and staff nurses on infection control
- Observership for BSc/MSc (Microbiology) students

Investigations done	
Culture, Sensitivity & Other tests	Number
Blood	12834
Exudate	1919
Urine	3351
Throat swab	2250
Sputum	1700
Aspirate	420
Stool	875
Surveillance culture	334
Cerebrospinal fluid	97
Acid-fast bacteria	4062
Acid Fast Bacilli culture	63
Fungus	70
Widal test	5
Serology (Procalcitonin, Troponin-I, Anti HblgM, Anti Hbc total)	5935
<b>Total</b>	<b>33,915</b>



# TRANSFUSION MEDICINE

Vijayalakshmi K

Additional Professor & Head

Assistant Professor: Amitha R

Resident Medical Officer: Rajesh R. Chandran

The Division is a National AIDS Control Organization recognized Regional Blood Transfusion Centre with an annual blood collection of over 25,000 units. All collected units were separated into components, most of which were used up by patients in RCC, and the rest were issued to patients in hospitals in Thiruvananthapuram city. The Division is a nodal training centre for staff members from Health Services. The division also started issuing leucoreduced blood products from January 2018.

## Academic activities

One year training programme in 'Advanced Training in Blood Banking and Transfusion Technology' with an annual intake of four seats.

Components issued	
Components	Number
Irradiation done	1491
Apheresis done	1585
Packed Red Cells	12509
Platelet concentrate	18841
Fresh Frozen Plasma	3973
Leukoreduced products	90 RBC, 90 PC



# PALLIATIVE MEDICINE

Cherian M. Koshy  
 Additional Professor & Head

Resident Medical Officer Gr. I: Prasanth CV  
 Resident Medical Officer: Manju Achamma Varghese



The Division conducts outpatient clinics six days a week, where on an average 80 patients are seen daily. Besides, we have a 12 bedded inpatient ward and regular consultation of admitted patients belonging to other clinics. The division has a liaison with the NGO 'Care-Plus' to see patients at their doorstep, particularly those who are either poor or sick to travel. Training was imparted to postgraduates of the various specialties from the Centre and also to doctors from private and Government hospitals. Training programmes were also

conducted, to help doctors start palliative care services in remote areas. The division continued to manufacture oral morphine in both liquid and capsule formulations.

Patient services	
Cases	Number
New	5860
Review	12893
<b>Total</b>	<b>18753</b>

# DENTAL CARE

Divya Raj

Assistant Professor



The scope of the Division is to minimize oral and dental complications throughout cancer treatment by eliminating all focus of infections in the oral cavity. Oral care of cancer patients begin immediately following cancer diagnosis and before starting up of any oncologic management. Various activities in this division include pre and post treatment dental checkup, counselling of patients with head and neck cancer regarding oral care during and after treatment, dental prophylaxis, post-radiation dental care in the form of fluoride gel application, odontoplasty, management of trismus and management of osteoradionecrosis. Professional application of fluoride gel is patient friendly and less expensive as it is done once in three months by professionals, instead of the daily application by patients themselves.

Clinical Services	
Cases	Number
Total patient visits	7950
Pre-treatment dental check up	3160
BMT/Stem cell therapy consultation	30
Dental prophylaxis	630
Management of trismus	100
Post radiation dental care	365
Management of osteoradionecrosis	5
Sodium fluoride gel application	3725
Odontoplasty	60

# NURSING SERVICES

Sreelekha R

Chief Nursing Officer

Nursing Superintendent: Flower Augustine (till 30/11/2017)  
Geetha S (from 05/02/2018)

The Division rendered patient care in wards, day care services, out-patient departments, high dependency units, operation theatres and speciality units. The Division with a team of 320 registered nurses strives for patient safety, quality care and continuous improvement of nursing profession. Nurse-driven speciality clinics such as the head and neck rehabilitation clinic, lymphoedema clinic, stoma care clinic and central venous access device clinic were continued functioning. Nursing services commenced special educational sessions regarding long term complications, use of vaginal dilators and the need for follow up of patients undergoing gynaecological brachytherapy. Spouses were included in the counseling sessions. About 129 patients attended the clinic, which was newly introduced for brachytherapy patients. A leaflet was also prepared for the care of patients attending the brachytherapy clinic. Peripherally Inserted Central Catheter procedure was done in 1158 patients.

## Clinical services

Service	Patient visits
Chemotherapy administration (OP)	75169
Central venous access device clinic	32250
Lymphoedema clinic	5194
Stoma clinic	5440
Head & Neck rehabilitation clinic	10357



## Training provided for Nurses from outside institutions

Training	Number
Palliative care	5
Stoma care	1
Cancer chemotherapy	9
CVAD insertion and care	4
BSc Nursing	1381
MSc Nursing	84
<b>Total</b>	<b>1484</b>

# CLINICAL SERVICES & MEDICAL RECORDS

Chandrika D

Medical Records Officer-I

Assistant Administrative Officer

(Clinical Services): Sreekumar B

Medical Records Officer-II: Anilkumar K

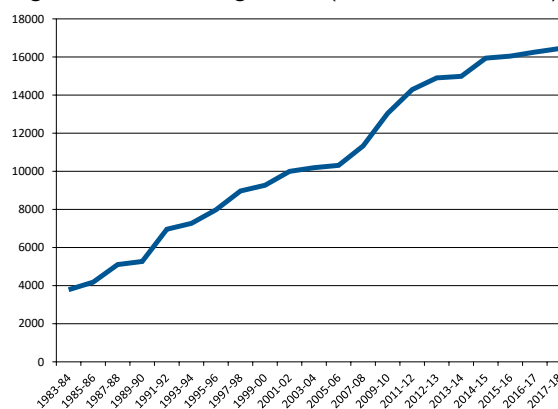
This Division is responsible for maintenance of medical records and management of follow-up appointments, co-ordination of inter-clinic referrals, arranging admissions and issuance of certificates and railway concessions to patients.

Patient Statistics	
Item	Number
New cases	16,443
Review cases*	2,48,887
Total patient visits	2,65,330
Daily average	884
In-Patient admissions	11,696
In-Patient bed**	286
Total bed occupancy	88,677
Average bed occupancy	243
Bed occupancy rate	85
Average patient stay (in days)	7
Hospital death	808
Peripheral Centres Consultation	1970

\* Follow up at peripheral centres, palliative care, clinic to clinic consultation, review during treatment, etc. are not included.

\*\* Day care chemotherapy wards and other admissions not meant for overnight stay are not included.

Figure: New cases registered (1983-84 to 2017-18)



## Patient Registration

Patients were grouped into categories according to their socio-economic status and payment capacities.

Patient categories based on socio-economic status (At the time of registration)		
Category	Number	%
F	2506	15.25
M	5579	33.93
O	3204	19.49
P	133	00.80
R	775	04.71
S	305	01.85
C	2780	16.91
K	1161	07.06
Total	16443	100.00

- F - Minimum payment
- M - Subsidised payment
- O - Normal rate
- P - Private
- R - Reimbursable
- S - Cancer Suraksha Scheme
- C - Comprehensive Health Insurance Scheme (CHIS +)
- K - Sukrutham Kerala

New cases registered (Speciality clinic wise)		
Clinic	Number	%
A	2359	14.35
B	2637	16.05
C	2710	16.46
D	2860	17.39
E	3947	24.01
F	602	03.66
G	1328	08.08
<b>Total</b>	<b>16443</b>	<b>100</b>

- A - Haematological, Lymphoreticular, bone and soft tissue sarcoma
- B - Head & Neck
- C - Breast & Central Nervous System
- D - Gynaec, Genitourinary & others
- E - Chest & Gastrointestinal
- F - Paediatric (Patients upto the age of 14 years)
- G - Thyroid

Review cases (Speciality clinic wise)		
Clinic	Number	%
A	44067	17.70
B	35780	14.38
C	54431	21.87
D	35226	14.15
E	39946	16.04
F	22834	09.18
G	16603	06.68
<b>Total</b>	<b>248887</b>	<b>100</b>

New cases registered (Gender wise)				
Clinic	Male	%	Female	%
A	1391	17.57	968	11.34
B	1958	24.74	679	07.95
C	235	02.97	2475	29.03
D	954	12.05	1906	22.39
E	2783	35.15	1164	13.65
F	325	04.10	277	03.25
G	271	03.42	1057	12.39
<b>Total</b>	<b>7917</b>	<b>100</b>	<b>8526</b>	<b>100</b>

## Referral System

RCC is a tertiary level referral hospital and patients were referred from other government and private hospitals.

Referred cases		
Referred from	Number	%
Teaching hospitals	4115	25.02
District/General Hospitals	1359	08.26
Other Government Hospitals	714	04.34
VSSC/ESI/CGHS/ Railway Hospitals	441	02.68
ECDC and Peripheral Centres	87	00.53
Other Cancer Centres	122	00.74
Private Doctors	259	01.58
Private Hospitals	7974	48.49
International (Maldives)	118	00.72
Self/RCC	1254	07.63
<b>Total</b>	<b>16443</b>	<b>100</b>

## Training provided

Master of Applied Science & Medical Documentation and MA/MSW students from various universities were imparted training in medical records and patients services.

# COMMUNITY ONCOLOGY

Ramani S. Wesley  
Professor & Head

Additional Professor: Gigi Thomas  
Associate Professor: Jayakrishnan R

The Community Oncology Division gives emphasis on primary and secondary prevention of cancers and also takes key initiatives for cancer control activities through human resource development programmes. To fulfil these objectives, the Division conducted trainer-trainee programmes, community oriented cancer awareness/education programmes and cancer detection camps on a regular basis. Along with this, an Early Cancer Detection Clinic (ECDC) is also run by the division. In the period under report, 13, 636 people were examined as part of the cancer screening/early detection programmes. This included community based cancer screening (8658) and those reported at the Early Cancer Detection Clinic (4978).

## Human Resource Development

- **International School of Colposcopy:** 36 doctors were given one-week hands on training, 59 BSc (MLT) students and nine nurses were given one day orientation programme on VIA, VILI and Colposcopy.
- **Trainer-trainee programmes:** Trainer-trainee programmes were conducted for health care providers which included doctors, post graduate medical students, paramedical staff and community volunteers from governmental and non-governmental institutions.

Trainer-Trainee programmes	
Categories of Trainees	Number trained
Doctors	36
Nurses and paramedicals	112
Community Volunteers (NSS, ASHA workers)	2876
Others (NCC cadets, Jail Wardens)	1248
<b>Total</b>	<b>4272</b>

## Early Cancer Detection

During the period under report, 4978 persons attended the Early Cancer Detection Clinic of the Division. 613 cancers and 1802 precancers were detected through screening. Oral biopsy was done for 28 patients. In the oral dysplasia clinic, 148 cases of leukoplakia and 65 cases of oral submucous fibrosis were detected. The details of activities of the colposcopy clinic are given in the following table.

Colposcopy clinic	
Procedures done	Number
Colposcopy	2419
Colpodirected biopsy	50
Visual inspection using acetic acid and Lugol's iodine	4320
Pap smear	1464

## Cancer Outreach Programmes

98 cancer detection camps were conducted in various parts of the State in which 8658 people underwent screening. Through 29 cancer awareness programmes 4120 trainees were sensitised in cancer control. 484 HPV lesions were detected through cancer detection camps. A bi-weekly cervical cancer detection clinic was also being conducted at Mangalapuram in Thiruvananthapuram district for the women residing in the control area of Breast Cancer Screening project. Apart from these, 12 cancer awareness programmes and eight cancer detection camps were conducted in the Idukki district.

## Other activities

### **World No Tobacco Day (31 May 2017)**

World No Tobacco Day with the theme 'Tobacco: A threat to development' was observed in collaboration with Directorate of Health Services and Sree Chitra Tirunal Institute for Medical Sciences and Technology and it was inaugurated by Smt. K.K. Shailaja Teacher, Hon'ble Minister for Health and Social Justice, Govt. of Kerala.

### **World Cancer Day (4 February 2018)**

Training programme for house surgeons of Govt. Medical College and Govt. Dental College, Thiruvananthapuram was conducted at RCC in collaboration with Kerala Association of Surgical Oncology and Cancer Control Foundation of India. The focus of the training programme was cancer prevention and early detection of common cancers.



# CANCER RESEARCH

Kannan S

Professor & Head

---

Additional Professors: Sujathan K, Lakshmi S

Associate Professor: Hariharan S

Assistant Professors: Sreelekha TT, Guruvayoorappan C

Six research groups are working in this Division.

### ***The Laboratory of Cell Cycle Regulation and Molecular Oncology***

is focusing on interpreting the molecular mechanisms behind oral cancer development and progression. Currently studies are going on to reveal the significance of NF $\kappa$ B and STAT3 signalling pathways in oral cancer progression. We are also involved in the functional validation of the microRNA signature obtained for oral cancer using various in vitro approaches and currently the functional role of miR-144-3p, which was a down regulated signature miRNA of oral cancer. Furthermore, we also initiated studies on the metabolomics of oral cancer to identify how metabolism supports shifts in the cancer cell phenotype that can contribute to metastasis.

***The Laboratory of Molecular Cytopathology and Proteomics*** is focusing on identifying early cancer detection methods mainly for the cancers of cervix and lung. One of our collaborative studies found that Surface Enhanced Raman Spectroscopy

is useful for cervical cancer diagnosis and based on this, a portable device with in-built micro Raman system has been designed and a patent application has been submitted for the same. A robust technique has been standardized to extract the whole cell content of sputum samples and characterized malignant cells in sputum with DNA replication licensing proteins. We are also trying to develop a multiplex method for analysis of ER, PR and HER2 receptor status in breast cancer patients using quantum dots as well as SERS platform. Studies are also progressing to elucidate the role of galectin-3 in drug resistance and epithelial mesenchymal transition in triple negative breast cancers.

***The Laboratory of Molecular Medicine*** has been undertaking studies on the elucidation of cell signaling pathways in the development of breast cancers. Studies are ongoing to develop primary cell lines of breast cancers and to study the effect of plant products in development and progression of



tumours. A population based study is progressing to study the genetic and epidemiological factors involved in breast cancer. A multi-institutional collaborative study is also initiated to understand the biology of triple negative breast cancers. Postdoctoral studies are ongoing to analyze the therapeutic potential of various natural plant products. Studies on NFkB activation in multiple myeloma and the significance of PDL1 expression in breast cancer is also being carried out.

**The Laboratory of Cytogenetics and Molecular Diagnosis** is mainly working on cytogenetics and molecular markers in leukaemia. Our study identified specific chromosomal abnormalities for each types of leukaemia and which can have potential to be used as diagnostic karyotype markers. Significance of mutation in various leukaemia associated genes is being carried out in AML patients. Cytogenetic and molecular studies on paediatric leukaemia, imatinib resistance in CML patients, molecular mechanism in advanced stages of CML patients, and drug resistance in AML patients are also being studied. A cytogenetic and molecular study in inhabitants of high natural background radiation area in Kerala is also progressing. A new collaborative study has been initiated for the development of a software for karyotyping.

**The Laboratory of Biopharmaceuticals & Nanomedicine** is mainly focusing on the development of plant polysaccharide based nanomaterials for cancer management and regenerative medicine. Polysaccharide capped gold nanoparticles are developed for versatile therapeutic modules including photothermal therapy as well as for noninvasive fluorescent imaging. Silver nanoparticles with potent antibacterial activity are being studied with a great insight for wound healing and water purification applications. These nanoconjugates are also shown to be excellent enhancers of Surface Enhanced Raman Scattering (SERS) substrates. Iron nanoparticles demonstrate a great opportunity for new treatment regimens including hyperthermia and image guided tumor reduction. Biopolymer coated gene and drug delivery system with efficient site specific release for attaining synergistic therapeutic effects are also under evaluation. Synthesis of polysaccharide based scaffolds is also progressing to provide an architecture for the development of 3D culture systems and induced mesenchymal stem cell differentiation.

**The Laboratory of Immunopharmacology and Experimental Therapeutics** focuses on investigating the mechanisms that modulate the immunological milieu in different tissue microenvironment particularly in tumours. The laboratory is devoted in the development of novel, targeted therapeutic agents that could inhibit the cascade of events leading to tumour cell invasion and metastasis. The laboratory also initiated a collaborative study to develop therapeutic agents that can mitigate the toxic effects of radiation especially esophagitis, mucositis and pulmonitis or lung injury (RILI).

## New Equipment Acquired

Equipment Acquired	Number
Inverted fluorescent microscope	1
Thermal cycler	1
Chemidoc system	1
High speed refrigerated centrifuge	1
Vacuum concentrator	1
Qubit fluorometer	1
Lyophilizer	1
Vertical electrophoresis unit	1
Horizontal electrophoresis unit	1

Diagnostic services provided	
Services	Number
Karyotype analysis	
Bone marrow samples	1200
Peripheral blood samples	30
Quantitative RT-PCR for BCR-ABL	203
Qualitative RT-PCR for BCR-ABL & PML-RARA	547
Fluorescent In Situ Hybridization	690
<b>Total</b>	<b>2670</b>

## Academic activities

Ongoing Doctoral Research Programmes			
Sl. No.	Research scholar	Title of the study/University	Guide
1.	Dileep Kumar U	Studies on the biology of carcinoma of buccal mucosa and tongue/University of Kerala.	Dr. S. Kannan
2.	Joseph Vimal	Biology of metabolic reprogramming in metastatic oral cancer/ University of Kerala.	Dr. S. Kannan
3.	Sinto MS	Biology of NFκB and STAT3 transcriptional factors in oral carcinogenesis/University of Kerala.	Dr. S. Kannan
4.	Manasa VG	Biological significance of miRNAs altered in oral carcinoma/ University of Kerala.	Dr. S. Kannan
5.	Saritha VN	Proteome analysis in squamous cell carcinoma and its precursor lesions of cervix/M.S.University.	Dr. K. Sujathan
6.	Rajesh SV	Study of cell cycle regulatory proteins in thyroid nodules/ M.S.University.	Dr. K. Sujathan
7.	Akhil BS	Phytochemical and biological studies of selected plants of Verbenaceae/Manipal University.	Dr. K. Sujathan
8.	Jeethi Ram	Galectin driven stem cell regulation in triple negative breast cancers/Manipal University.	Dr. K. Sujathan
9.	Sulfath TP	Exploring eccentric roles of hippo pathway in the progression and survival of triple negative breast cancer (TNBC) to ascertain molecular therapeutic target/University of Kerala.	Dr. Lakshmi S
10.	Ajeesh BL	Characterization of glucose metabolism in breast cancer and its therapeutic implications/University of Kerala.	Dr. Lakshmi S
11.	Aswathy CG	A study of gene expression profile in inhabitants of high background radiation of Karunagappally, Kerala, India/Mahatma Gandhi University.	Dr. S. Hariharan
12.	Krishnachandran R (Thesis submitted)	Blastic transformation of chronic myelogenous leukaemia: Cytogenetic and molecular mechanisms orchestrating the disease progression/University of Kerala.	Dr. S. Hariharan
13.	Preethi G. Nath	Identification of novel prognostic markers in paediatric leukaemia/ University of Kerala.	Dr. S. Hariharan
14.	Akhila Raj	Molecular studies on genes responsible for drug resistance: A study on de novo and relapsed acute myeloid leukaemia patients/ University of Kerala.	Dr. S. Hariharan
15.	Geetha Raj	Cytogenetic abnormalities and risk stratification of multiple myeloma patients by FISH technique/University of Kerala.	Dr. S. Hariharan
16.	Mahitha M S	Clinical significance of advanced stages of CML patients/ University of Kerala.	Dr. S. Hariharan
17.	Sheeja Varghese	Studies on the molecular mechanisms of antitumour/ immunomodulatory polysaccharide from <i>Mangifera indica</i> / University of Kerala.	Dr.T.T. Sreelekha

18.	Alphy Rose James	Evaluation of molecular basis of drug response in lung cancer cells by gene profiling for targeted personalized medicine/ University of Kerala.	Dr.T.T. Sreelekha
19.	Unnikrishnan BS	Application of polysaccharide metal nanoconjugates in cancer detection and therapy/University of Kerala.	Dr.T.T. Sreelekha
20.	Preethi GU	Chemotherapeutics loaded polysaccharide scaffold as novel tool to fight against cancer/University of Kerala.	Dr.T.T. Sreelekha
21.	Shiji R	Galactomannan polysaccharide nanoconjugates for imaging and targeted cancer therapy/University of Kerala.	Dr.T.T. Sreelekha
22.	Archana MG	Polysaccharide based nanoconstructs facilitated co-delivery of drug and gene for effective cancer therapy/University of Kerala.	Dr.T.T. Sreelekha
23.	Abeesh P	Liposome encapsulation of phytochemicals from Ashwagandha ( <i>Withania somnifera</i> L.) for improved bioavailability and its potential application in lung cancer treatment by targeting EGFR,STAT3 and NF-κB signaling pathways/University of Kerala.	Dr. Guruvayoorappan C
24.	Vishnu Walsan	Investigation of radioprotective effect of mangroves and its potential application in mitigating radiation-induced esophagitis/ University of Kerala.	Dr. Guruvayoorappan C
25.	Drishya Sudarsanan	Antitumour and radioprotective effect of medicinal plants and its possible therapeutic application to mitigate detrimental effect of radiotherapy/University of Kerala.	Dr. Guruvayoorappan C
26.	Dhanisha S S	Investigation of the immunomodulatory efficacy of medicinal plants and its potential application in preventing cancer metastasis/University of Kerala.	Dr. Guruvayoorappan C

Training provided	
Trainees	Number trained
MD/MS/DM students (Dissertation work)	55
MSc (Biotech)/Life Science students (3 months project work)	53
MSc (MLT) students	8
BSc (MLT) students	190

# CANCER EPIDEMIOLOGY & BIOSTATISTICS

Aleyamma Mathew  
Professor & Head

Associate Professors: Latha PT, Jayalekshmi P,  
Preethi Sara George

Assistant Professors: Padmakumary Amma G,  
Kalavathy MC, Jagathnath Krishna K M

The Division runs the hospital and population based cancer registries (HBCR & PBCR), conducts cancer surveillance programmes (Hospital-based pattern of care and cancer survival studies and Population-based cancer survival studies), cancer epidemiologic studies (five numbers), biostatistics studies (five numbers), and cancer awareness classes and screening programmes. The division conducted classes in biostatistics for students of RCC, provided training in cancer registry operations, conducted doctoral programmes in epidemiology & biostatistics and also offered more than 125 statistical consultancy services. The Division prepared Hospital Based Cancer Registry annual reports for the year 2014 & 2015 and Population Based Cancer Registry annual reports for the year 2015 & 2016.

**Hospital Based Cancer Registry (HBCR), Regional Cancer Centre, Thiruvananthapuram (2017-2018): System-wise distribution (%) of invasive cancers by gender**

Male N = 7092 %	System Total=14512	Female N = 7420 %
2.7	Brain & Nervous System	1.9
20.3	Oral Cavity & Pharynx	6.9
3.7	Thyroid	13.7
17.9	Respiratory System	3.6
0.3	Breast	29.0
8.6	Oesophagus & Stomach	2.9
13.7	Other Digestive Organs	7.9
3.9	Urinary Tract	0.8
5.4	Reproductive System	18.7
3.7	Bone, Conn. tissue & Skin	2.8
9.9	Leukaemia & Myeloma	6.9
6.5	Lymphoma	3.2
3.4	All Others	1.8

**Hospital Based Cancer Registry (HBCR), Regional Cancer Centre, Thiruvananthapuram (2017-2018): Site-wise distribution of patient registration by gender**

ICD-10	Site	Male		Female		Total	
		No.	%	No.	%	No.	%
C00	Lip	19	0.3	13	0.2	32	0.2
C01	Base of tongue	11	0.2	0	0.0	11	0.1
C02	Tongue	501	7.1	187	2.5	688	4.7
C03	Gum	124	1.7	69	0.9	193	1.3
C04	Floor of mouth	86	1.2	11	0.1	97	0.7
C05	Palate	57	0.8	18	0.2	75	0.5
C06	Other mouth	307	4.3	125	1.7	432	3.0

C07	Parotid gland	26	0.4	25	0.3	51	0.4
C08	Salivary gland	6	0.1	7	0.1	13	0.1
C09	Tonsil	38	0.5	3	0.0	41	0.3
C10	Oropharynx	112	1.6	9	0.1	121	0.8
C11	Nasopharynx	33	0.5	16	0.2	49	0.3
C12	Pyriiform sinus	71	1.0	4	0.1	75	0.5
C13	Hypopharynx	46	0.6	18	0.2	64	0.4
C14	Pharynx unspecified	3	0.0	3	0.0	6	0.0
C15	Oesophagus	237	3.3	94	1.3	331	2.3
C16	Stomach	375	5.3	124	1.7	499	3.4
C17	Small intestine	16	0.2	8	0.1	24	0.2
C18	Colon	194	2.7	141	1.9	335	2.3
C19	Rectosigmoid colon	37	0.5	30	0.4	67	0.5
C20	Rectum	283	4.0	188	2.5	471	3.2
C21	Anus & anal canal	11	0.2	6	0.1	17	0.1
C22	Liver	255	3.6	82	1.1	337	2.3
C23	Gall bladder	18	0.3	23	0.3	41	0.3
C24	Other biliary tract	36	0.5	24	0.3	60	0.4
C25	Pancreas	120	1.7	83	1.1	203	1.4
C30	Nasal cavity	25	0.4	12	0.2	37	0.3
C31	Accessory sinus	17	0.2	7	0.1	24	0.2
C32	Larynx	242	3.4	15	0.2	257	1.8
C33	Trachea	1	0.0	1	0.0	2	0.0
C34	Lung	961	13.6	221	3.0	1182	8.1
C37	Thymus	0	0.0	1	0.0	1	0.0
C38	Heart & mediastinum	22	0.3	9	0.1	31	0.2
C40	Bone of limbs	51	0.7	30	0.4	81	0.6
C41	Other bone	28	0.4	30	0.4	58	0.4
C42	Hematopoietic & Reticuloendothelial system	0	0.0	1	0.0	1	0.0
C43	Skin melanoma	19	0.3	25	0.3	44	0.3
C44	Skin other	75	1.1	50	0.7	125	0.9
C47	Peripheral nerves	12	0.2	4	0.1	16	0.1
C48	Retroperitoneum	12	0.2	11	0.1	23	0.2
C49	Connective tissue	76	1.1	71	0.9	147	1.0
C50	Breast	23	0.3	2152	29.0	2175	15.0
C51	Vulva	0	0.0	10	0.1	10	0.1
C52	Vagina	0	0.0	24	0.3	24	0.2
C53	Cervix uteri	0	0.0	526	7.1	526	3.6
C54	Corpus uteri	2	0.0	350	4.7	352	2.4
C55	Uterus, nos	0	0.0	35	0.5	35	0.2
C56	Ovary	1	0.0	437	5.9	438	3.0
C57	Other female genital organs	0	0.0	2	0.0	2	0.0

C60	Penis	36	0.5	0	0.0	36	0.2
C61	Prostate	318	4.5	1	0.0	319	2.2
C62	Testis	28	0.4	0	0.0	28	0.2
C63	Other genital organs	3	0.0	0	0.0	3	0.0
C64	Kidney	122	1.7	36	0.5	158	1.1
C65	Renal pelvis	2	0.0	0	0.0	2	0.0
C66	Ureter	3	0.0	0	0.0	3	0.0
C67	Urinary bladder	146	2.1	22	0.3	168	1.2
C68	Other urinary organs	1	0.0	1	0.0	2	0.0
C69	Eye	8	0.1	3	0.0	11	0.1
C71	Brain	188	2.7	135	1.8	323	2.2
C72	Spinal cord	1	0.0	4	0.0	5	0.0
C73	Thyroid gland	264	3.7	1019	13.7	1283	8.8
C74	Adrenal gland	9	0.1	13	0.2	22	0.2
C75	Other endocrine gland	2	0.0	2	0.0	4	0.0
C76	Ill defined sites	10	0.1	13	0.2	23	0.2
C77	Secondary lymph node	126	1.8	39	0.5	165	1.1
C78	Secondary resp.& digestive	15	0.2	17	0.2	32	0.2
C79	Secondary Other sites	23	0.3	18	0.2	41	0.3
C80	Primary unknown	36	0.5	15	0.2	51	0.4
C81	Hodgkin's disease	100	1.4	52	0.7	152	1.0
C82	Follicular NHL	57	0.8	41	0.6	98	0.7
C83	Diffuse NHL	197	2.8	92	1.2	289	2.0
C84	T-cell lymphoma	30	0.4	11	0.1	41	0.3
C85	Other NHL	64	0.9	30	0.4	94	0.6
C88	Malig. immunoproliferative	0	0.0	1	0.0	1	0.0
C90	Multiple myeloma	162	2.3	139	1.9	301	2.1
C91	Leukaemia, lymphoid	225	3.2	126	1.7	351	2.4
C92	Leukaemia, myeloid	224	3.2	176	2.4	400	2.8
C93	Leukaemia, monocytic	48	0.7	41	0.6	89	0.6
C94	Other specified leukaemia	2	0.0	0	0.0	2	0.0
C95	Leukaemia, unspecified	40	0.6	29	0.4	69	0.5
C96	Other lymphoid neoplasm	13	0.2	9	0.1	22	0.2
	<b>Total (Invasive)</b>	<b>7092</b>	<b>100</b>	<b>7420</b>	<b>100</b>	<b>14512</b>	<b>100</b>
	Benign tumours	130	15.8	268	24.2	398	20.6
	Borderline malignancy	9	1.1	63	5.7	72	3.7
	In-situ	8	1.0	38	3.4	46	2.4
	Non-neoplastic (pre-malignant conditions & others)	404	49.0	492	44.5	896	46.5
	<b>Diagnosis not confirmed</b>	<b>274</b>	<b>33.21</b>	<b>245</b>	<b>22.2</b>	<b>519</b>	<b>26.9</b>
	<b>Total (non-invasive)</b>	<b>825</b>	<b>100</b>	<b>1106</b>	<b>100</b>	<b>1931</b>	<b>100</b>
	<b>Total no. of Patients</b>	<b>7917</b>	<b>100</b>	<b>8526</b>	<b>100</b>	<b>16443</b>	<b>100</b>

**Population Based Cancer Registry (PBCR), Thiruvananthapuram District (2016): Number (#), Crude Incidence Rate (CR), and Annual Age-adjusted Incidence Rate (AAR) per 100,000 persons of leading cancer sites**

ICD-10	Site	Male			Female		
		#	CR	AAR	#	CR	AAR
C00-C06	Oral cavity	274	17.3	13.2	106	6.1	4.4
C01-02	Tongue	128	8.1	6.2	51	2.9	2.1
C03-06	Mouth	140	8.8	6.7	49	2.8	2.1
C09-14	Pharynx	105	6.6	5.1	14	0.8	0.6
C15	Oesophagus	86	5.4	4.1	22	1.3	0.9
C16	Stomach	82	5.2	4	37	2.1	1.5
C18	Colon	91	5.7	4.4	80	4.6	3.4
C19-21	Rectum	122	7.7	5.9	106	6.1	4.4
C22	Liver	125	7.9	6.0	50	2.9	2.1
C25	Pancreas	47	3.0	2.3	39	2.2	1.6
C32	Larynx	123	7.7	5.9	9	0.5	0.4
C33-34	Lung	354	22.3	17.3	132	7.5	5.5
C40-41,49	Bone & Conn. tissue	45	2.8	2.5	32	1.8	1.8
C43-44	Skin	69	4.3	3.3	48	2.7	2.0
C50	Breast	28	1.8	1.3	875	50	36.8
C53	Cervix Uteri	-	-	-	171	9.8	7.0
C54	Corpus Uteri	-	-	-	148	8.5	6.2
C56	Ovary	-	-	-	164	9.4	7.2
C61	Prostate	208	13.1	10.0	-	-	-
C64-66,68	Kidney etc.	55	3.5	2.8	22	1.3	1.0
C67	Urinary Bladder	92	5.8	4.4	20	1.1	0.8
C70-72	Brain & other CNS	60	3.8	3.4	48	2.7	2.3
C73	Thyroid	88	5.5	4.5	393	22.5	18.3
C81-85,96	Lymphoma	136	8.6	7.0	80	4.6	3.6
C90	Multiple Myeloma	77	4.8	3.8	64	3.7	2.7
C91-95	Leukaemia	75	4.7	5.1	78	4.5	4.0
<b>C00-96</b>	<b>All Sites</b>	<b>2855</b>	<b>180.1</b>	<b>141.7</b>	<b>3172</b>	<b>181.1</b>	<b>136.7</b>



## Cancer screening programmes

Training in early cancer detection and hands on training in visual inspection of cervix, Pap smear collection and breast examination were imparted to 134 Medical Officers and Senior level paramedical staff from primary health care centres in Vembayam, Pathanapuram and Ottoor. The division conducted 97 cancer detection programmes in Thiruvananthapuram, Kollam, Pathanamthitta, Kottayam and Idukki districts in which 6795 people underwent screening. 72 cancer awareness classes were also organised for the general public. Pap smear screening was carried out in 2961 women who attended the camps and 2324 women who reported in Women & Children hospital, Thycaudu and General Hospital, Peroorkada.

### Cancers & pre-cancers detected in cancer detection camps

Oral cancer	9
Breast cancer	7
Cervix cancer	9
Cervical pre-cancer	27

## Academic activities

Organized a workshop on 'Cancer epidemiology & biostatistics', 9 February 2018 with an International Faculty Dr. Malcolm A. Moore (Ex-Chief Editor of Asia Pacific Journal of Cancer Prevention).

### Ongoing Doctoral Programmes

No.	Research scholar	Title of study/University	Guide
1	Subha R. Nair	Risk prediction models for the development of breast cancer/University of Kerala	Dr. Aleyamma Mathew
2	Kavitha Chandran C	Effect of multilateral health care strategies on metabolic profile among prediabetics/University of Kerala	Dr. Aleyamma Mathew
3	Devi Vijaya A	Statistical prediction of breast cancer patient survival using artificial neural network models /Mahatma Gandhi University	Dr. Aleyamma Mathew
4	Kalavathy MC (Thesis submitted)	Evaluation of Pap smear screening and HPV pattern among women with ASCUS (Atypical Squamous Cells of Undetermined Significance) in Thiruvananthapuram, South Kerala/ Mahatma Gandhi University	Dr. Aleyamma Mathew
5	Sreelekha KR	Bayesian Modelling and Posterior Inference for Breast Cancer survival data in Kerala/Mahatma Gandhi University	Dr. Preethi Sara George

# LIBRARY AND INFORMATION SERVICES

Vishnu V

Librarian cum Information Officer Gr: I

The Division carried out a wide range of services to support the clinical, academic and administrative requirements of the Centre. Full text of the subscribed content from the following journal publishing platforms such as ScienceDirect, Wiley Online Library, Oxford University Press, Ovid, Springer, Informa Health, American Society of Clinical Oncology, American Association for Cancer Research, and Nature Publishing were made available electronically. Arrangements were made for the off campus access to UpToDate Anywhere database and the journals from ScienceDirect and Ovid. This is in addition to the journals, E-books and other multimedia resources available through the arrangement with the National Cancer Grid programme of Govt. of India. Library continued the DELNET membership to meet user demand for articles from non-subscribed journals.

## Web-based information services

Arrangements are in place for the provision of information services through regular updates in library home page. Links were provided to each journal, which enabled direct access to full text of articles. Details of books, RCC publications, reprints, journal holdings, e-books, and previous year university examination question papers were made accessible through links provided in the library page.



Information sources	
Document type	Collection as on 31 March 2018
Books, Monographs and Back Volumes	13,264
Current Journals	135
E-Journals	130
E-Books	146
Reprints	7685

# INFORMATION SYSTEMS

Sanjeev R

---

Officer in Charge

The main responsibilities the Division include developing and implementing information technology for the hospital. It supports and maintains operational systems and trains hospital staff in the use of information technology. State-of-the-art mini data centre and disaster recovery site are attached to the division.

**Activities of the Division include:**

Maintenance of Hospital Information System, web, mail and proxy servers, administration of Oracle database, management of LAN and WAN, management of data relating to Cancer Care for Life scheme, maintenance of PCs and trouble shooting, administration and maintenance of telemedicine software and equipment, scanning of case sheets, etc.

## Hospital Information System (HIS)

HIS in RCC, known as TEJHAS (Telemedicine Enabled Java based Hospital Automation System) is a network of computers, used to collect process and retrieve patient care and administrative information on all hospital activities from various departments to satisfy the functional requirement of the users.

# EARLY CANCER DETECTION CENTRE (ECDC)

## ECDC, Ernakulam

Latha A

Cytopathologist

Early Cancer Detection Centre, Kaloor, Ernakulam primarily aims at screening and early diagnosis of cancers through cervical smear examination, oral scrape smear examination, fine needle aspiration cytology, colposcopy and fluid cytology. In addition to the daily clinics of about 50 patients per day, ECDC conducted cancer detection camps and cancer awareness classes in Ernakulam and neighbouring districts. The monthly follow up clinic conducted on every 3rd Saturday was attended by 940 patients.

Screening services	
Services	Number
Awareness classes	58
Cancer detection camps	94
Persons screened	31465
Cancers detected*	411
Pre-cancers detected	325

\*Oral-32, Breast-229, Cervix-9, Lymphoma-14, Thyroid-44, Metastatic lymphnode-64, Others-19

Clinical activities			
Tasks	ECDC	Camp	Total
Cervical smear	2199	3945	6144
Oral smear	149	25	174
Fine Needle Aspiration Cytology	2901	2062	4963
Sputum cytology	16	-	16

## ECDC, Palakkad

Rekha SR

Resident Medical Officer

Creating cancer awareness among the public and cancer screening were the main functions of this ECDC. The Centre has organized cancer detection camps and awareness programmes in the rural and urban areas of Palakkad, Malappuram, Thrissur districts and adjacent areas of Tamil Nadu. Short course chemotherapy and other minor procedures like CVAD dressing, pump removal, ascitic tapping, and pleural tapping referred from RCC were also done. Pap smear collection from District Hospital, Palakkad was restarted from October 2017 and 6 cases were detected from the 201 samples collected. Follow up clinics were conducted every three months and 370 patients attended. Awareness programmes for the control of tobacco induced cancers were done with the help of NGO's.

Screening services	
Services	Number
Awareness classes	110
Cancer detection camps	79
Persons screened	15250
Cancers detected*	45
Pre-cancers detected	300

\*Oral-9, Breast-20, Cervix-1, Others-15

Clinical activities			
Tasks	ECDC	Camp	Total
Cervical smear	582	3455	4037
Oral smear	25	19	44
Fine Needle Aspiration Cytology	68	137	205
Sputum Cytology	6	-	6
Nipple discharge	8	30	38
Fluid Cytology	12	-	12

# NATURAL BACKGROUND RADIATION CANCER REGISTRY (NBRR), KARUNAGAPPALLY

Jayalekshmi P

Associate Professor & Officer-in-charge

The Natural Background Radiation Cancer Registry (NBRR), an outreach centre of RCC, was started to evaluate the health effects of natural radiation present in the sea coast of Karunagappally Taluk, Kollam district of Kerala. NBRR carries out radiation epidemiologic studies on cancer and non-cancerous diseases, dosimetric studies and cytogenetic studies. Kollam District Cancer Registry supported by ICMR, Govt. of India and Cancer Care Centre supported by Govt. of Kerala are attached with this registry. The NBRR also conducts review clinics, cancer detection camps, awareness classes, and daily cancer supportive clinics with day care & home care.

## Patient services

The registry conducted cancer awareness classes, cancer detection camps, cancer control training programmes, review clinics, and cancer supportive clinics with day care & home care.

Patient services		
Services	Number	Persons attended
Cancer awareness classes & cancer control training programmes	11	1962
Review clinics	6	1890
Cancer supportive clinics with day care & home care	Daily	6971
Cancer detection camps	109	9252
Pap smear screening	---	6667
Other cytology investigations	242	---
Cancers detected*	25	---

\*Oral-8, Breast-8, Cervix-2, Others-7

# MULTIDISCIPLINARY CLINICS

# 'A' CLINIC

(HAEMATOLOGICAL, LYMPHORETICULAR, BONE & SOFT TISSUE SARCOMA)



'A' Clinic is responsible for the diagnosis and management of haematological and lymphoreticular malignancies, sarcomas and other solid tumours where intensive chemotherapy is indicated. 2831 patients were admitted for the administration of high profile chemotherapy and management of emergencies and complications. In the BMT unit, autologous bone marrow transplantation following high dose chemotherapy was performed in 33 patients. Allogenic bone marrow transplantation for leukaemias was performed in three patients. In the BMT unit, 71 stem cell apheresis procedures were done during the reporting period. Postgraduate students of Radiation Oncology and superspeciality students of Surgical Oncology and Medical Oncology of RCC and students from other Medical Colleges were given training.

## Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	2359
Review cases	44067
<b>Total</b>	<b>46426</b>

Specialised services			
High Dose chemotherapy	Autologous BMT	Allogenic BMT	Chemotherapy
2000	33	3	20000

Major surgical procedures: 271

Radiation treatments: 588

Observers/Visitors: 42

# 'B' CLINIC (HEAD & NECK)



'B' Clinic comprises of a multidisciplinary team of surgical oncologists and clinical oncologists working together for comprehensive evaluation, management, post treatment care and follow-up of patients with head and neck cancers. Daily tumour boards comprising of the various specialists were conducted for this purpose. The clinic provides state of the art radiotherapy services including IMRT, 3D conformal radiotherapy, and remote after loading HDR brachytherapy. Brachytherapy services provided include interstitial implantation, surface mould, etc. There is a closely associated dental division which provides pre and post radiotherapy dental care to patients. There is also a nurse run rehabilitation service attached to this clinic. The clinic is also provides training to post graduates of Surgery, ENT, Radiation Oncology and various Dental specialties from various colleges across South India.

## Radiotherapy Procedures

Radical		Palliative
IMRT	2D Planning	
105	1080	200

## Surgical Procedures

Oral cancers	Laryngo-pharyngeal	Salivary glands	Sino-nasal cancers	Others
788	108	38	60	215

## Chemotherapy

Concurrent Chemo-Radiotherapy	90
Neoadjuvant	264

**Observers/Trainees:** Twentyone postgraduates in Oral Pathology, ENT, and Radiotherapy from various institutions.

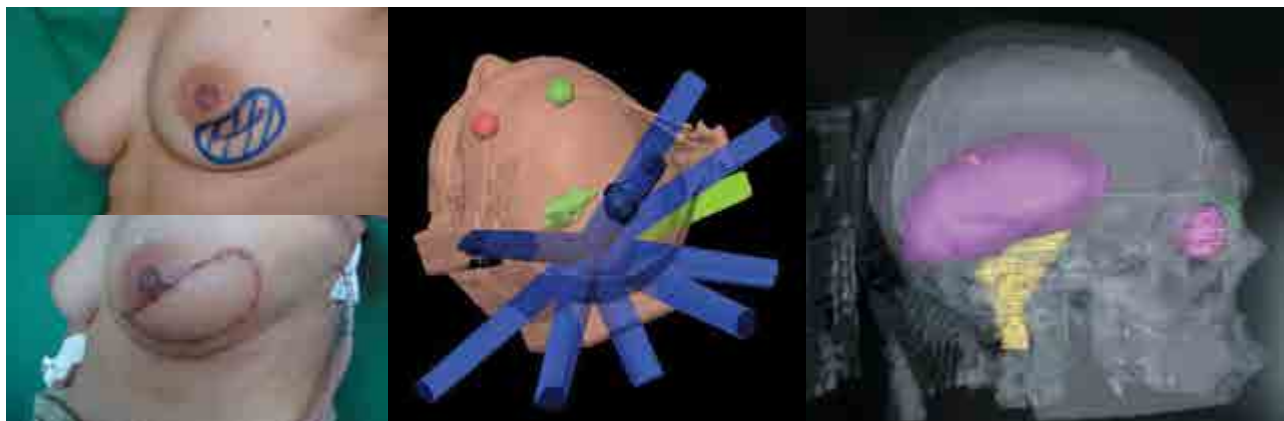
## Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	2637
Review cases	35780
<b>Total</b>	<b>38417</b>



# 'C' CLINIC

(BREAST & CENTRAL NERVOUS SYSTEM)



'C' clinic deals with the treatment of cancers arising in the breast and central nervous system. The clinic also caters to paediatric patients who need radiotherapy for central nervous system tumours. Regular multi-disciplinary tumour board discusses various treatment programmes for each patient. The services provided includes conservative and reconstructive surgeries for breast cancer, sentinel lymph node biopsy procedures, modern radiotherapy treatments such as 3D conformal radiotherapy, IMRT/IGRT, SRS/SRT and all forms of systemic treatments such as chemotherapy, endocrine therapy and targeted therapy. Clinic includes well-trained nurses for counselling regarding treatment side effects. Services including post treatment physiotherapy, rehabilitation and management of lymphoedema were provided in the lymphoedema clinic. Training in breast and neuro-oncology was provided for postgraduate and super-specialty students of RCC and other medical colleges.

## Clinical Services/Procedures Offered

Patients consulted				
Patients				Number
New cases				2710
Review cases				54431
<b>Total</b>				<b>57141</b>
Radiotherapy procedures				
Radical				Palliative
Conformal	Conventional	IMRT	Stereotactic Radiosurgery/ SRT	
1300	170	95	33	280
Surgical Procedures				
Mastectomy	Breast Conservation & Oncoplasty		Others	
769	353		249	

**Chemotherapy:** Most of the chemotherapy is delivered on an out-patient basis. In the reported year over 15,000 patients received chemotherapy.

# 'D' CLINIC

(GYNAEC, GENITOURINARY & OTHERS)



'D' clinic provides care for patients with gynaecologic, urologic, dermatologic cancer and cancers of unknown primary origin. This clinic consists of radiation oncologists, gynaecologic cancer surgeons, medical oncologists, post graduates in radiation oncology, medical oncology, surgical oncology and nursing staff. Patients were treated with precision radiotherapy (IGRT, IMRT and 3D conformal RT), surgery, chemotherapy, targeted and hormonal therapies. Surgical Oncology services range from extensive pelvic surgery to minimally invasive laparoscopic procedures. Clinical training was given to postgraduate students from Radiation Oncology, Surgical Oncology, Medical Oncology, Gynaecologic Oncology and Gynaecology.

## Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	2860
Review cases	35226
<b>Total</b>	<b>38086</b>

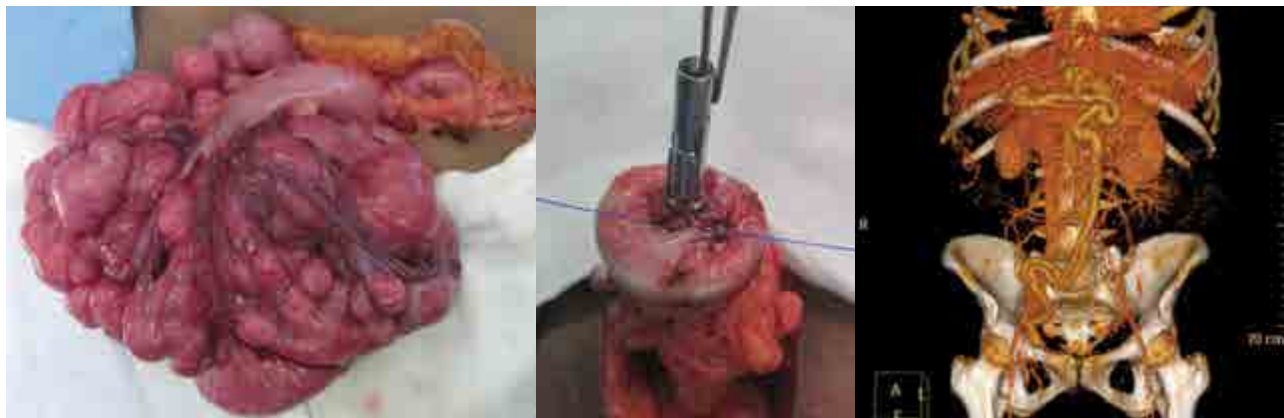
### Radiotherapy procedures

Radical			Brachytherapy	Palliative
3D CRT	IMRT	2D Planning		
54	108	570	1747	351

### Surgical Procedures

Gynaecological cancers	Ovarian	187
	Endometrial	83
	Cervical	21
	Others	74
Urological cancers	Nephrectomy	23
	Penectomy	15
	Bladder	15
Skin		46
Others		24

# 'E' CLINIC (CHEST & GASTROINTESTINAL)



'E' clinic caters to patients with thoracic and gastro-intestinal tumours. The multidisciplinary team consisting of well-trained surgical oncologists, radiation oncologists and medical oncologists, offers comprehensive state-of-the-art surgery radiotherapy, and chemotherapy services. Image guided and respiration gated radiotherapy and stereotactic body radiotherapy (SBRT), complex surgeries involving vascular reconstruction and liver resections are being practiced where clinically indicated. Clinical training was given to postgraduate students of Radiation Oncology, Surgical Oncology and Medical Oncology of RCC and from other Medical Colleges.

## Surgical procedures

Esophagus	Stomach	Hepatobiliary & Pancreas	Colorectal	Others
47	112	30	331	21

## Chemotherapy

The clinic provided both day care as well as inpatient chemotherapy services. Chemotherapy infusion regimens were given through infusion pumps using PICC line as part of daycare chemotherapy, thereby avoiding inpatient admissions.

## Academic activities

Organized 'Hyperthermic intra-peritoneal chemotherapy workshop and in-house training programme' for residents and consultants of Regional Cancer Centre, in February 2018.

## Clinical Services/Procedures Offered

### Patients consulted

Patients	Number
New cases	3947
Review cases	39946
<b>Total</b>	<b>43893</b>

### Radiotherapy procedures

Radical				Palliative
Conformal	IMRT	CT/2D Planning	Brachytherapy	
391	222	54	12	973

# 'F' CLINIC

## (PAEDIATRIC ONCOLOGY)



'F' clinic managed childhood malignancies up to the age of 14 years. Children from the state of Kerala, southern Tamil Nadu, Lakshadweep and Maldives attended the clinic for medical care. The clinic provided outpatient and inpatient services including ICU care with ventilatory support. Supportive care, psychosocial counseling, nutritional support, informal education and cultural programs for patients and parents were also provided. Among the new cases reported, acute lymphoblastic leukaemia and brain tumour were the most common malignancies. A total of 1942 children got admitted to the Paediatric ward during the period.

### Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	602
Review cases	22834
<b>Total</b>	<b>23436</b>

Procedures	
Intrathecal medications	2696
Lumbar puncture	505
Bone marrow aspiration/biopsy	963
PICC line insertion	17
PICC line resuturing	36
Trucut biopsy	37
FNAC	21
Pleural/ascitic tapping	9
Chest tube insertion	5
Ventilator support	48
Wound C&D, aspiration for C&S	39

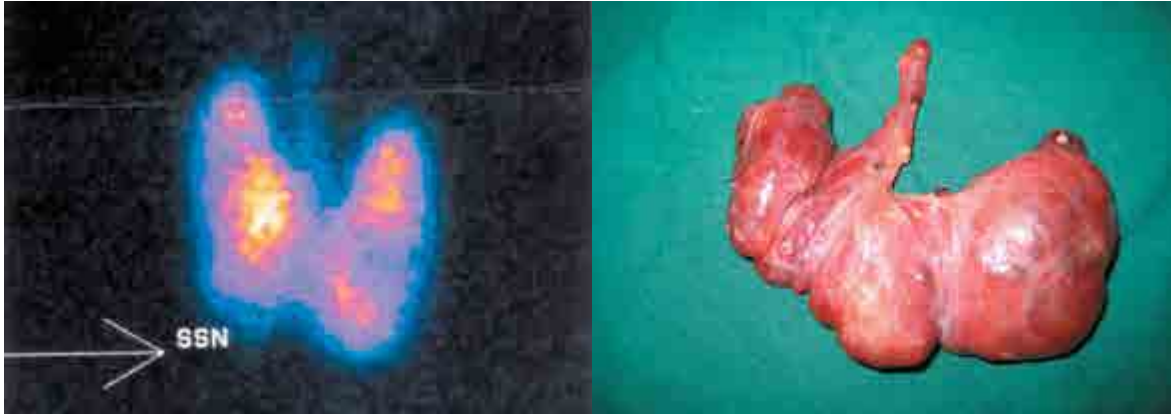
### Academic activities

The Clinic has an ongoing DM programme in Paediatric Oncology with an annual intake of two students. The clinic provided regular training to postgraduate students in Paediatric Oncology, Radiotherapy and Medical Oncology from RCC and various Medical Colleges.

### Visitors

Smt. K.K. Shailaja Teacher, Hon'ble Minister for Health and Social Justice, Govt. of Kerala and Shri. M. Jayachandran, Music Director.

# 'G' CLINIC (THYROID)



'G' clinic is a multidisciplinary clinic comprising experts from Nuclear Medicine, Surgical Oncology and Radiation Oncology divisions. The clinic managed both thyroid cancer as well as non-malignant cases.

## Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	1328
Review cases	16603
<b>Total</b>	<b>17931</b>

Nuclear Medicine services		
Immunoassays	PET-CT Scan	SPECT Gamma camera
65561	1368	5168

Radio-iodine therapy	
Thyroid Cancer	Thyrotoxicosis
578	247

Surgical Procedures		
Total Thyroidectomy	Hemi Thyroidectomy	Revision/ Completion Thyroidectomy
108	4	29

# Public Relations Activities

## Public Relations Officer Sr. Gr.

---

Surendran Nair V

The Public Relations wing dealt with media relations, Cancer Care for Life scheme, complaint redressal, information counter, public functions, advertisements, coordination of volunteers, receptionist training programme, poor patients' welfare fund campaign, interest free medical advance (IFMA) and preparation of brochures, articles, documentaries and other media publicity materials. Fund raising campaign to promote contribution to the poor patients welfare fund (Akshayapatram) has been organized with the help of several individuals and philanthropic organizations. Contribution received from 1673 donors during this period, has been utilized for food, medicine, and rehabilitation of patients who were not covered under any patient welfare schemes. 332 patients availed financial assistance from this fund. Classes for awareness about various welfare schemes were conducted in different parts of the State. Cancer awareness programmes were also conducted through various audio-visual media.

Certificates were issued to the 5th batch of Receptionist Trainees who successfully completed their training and the 6th batch was joined in July 2017. Public relations and communication orientation classes were conducted for students of Master of Social Work, Master of Health Administration, Master of Communication and Journalism, Master of Business Administration and Medical Documentation.

# Honours, Awards and Recognitions Received

## Faculty and other Staff

**Anoop TM (Assistant Professor)**, received MNAMS from National Academy of Medical Sciences (India) 2017 and ESMO certification by European Society of Medical Oncology (9 September 2017)

**Chandramohan K (Additional Professor)**, received best faculty paper award of ASICON: Annual Meeting of Surgeons of India, Jaipur, 26-30 December 2017.

**Deepthi J. Prabhu (Associate Professor)**, received first prize for innovation paper, 'Simple technique for cleaner laryngoscopes', at South Zone Conference of Indian Society of Anaesthesiology at Trichy, 4-6 August 2017.

**Divya Raj (Assistant Professor)**, received UICC technical fellowship for 'Advanced training in maxillofacial prosthetic rehabilitation services for head and neck cancer patients' at National Dental Centre, Singapore, 4 January - 2 February 2018.

**Elizabeth Mathew Iype (Additional Professor)**, awarded the global online fellowship in Head and Neck surgery and Oncology of International Federation of Head and Neck Oncologic Societies (IFHNOS), December 2017.

**Geethakumari BS (Head Nurse)**, received National Florence Nightingale Award 2017 from the Hon'ble President of India, (12 May 2017).

**Gigi Thomas (Additional Professor)**, received second best scientific paper award at the 29th National Conference of Indian Academy of Oral Medicine and Radiology, Ghaziabad, 1-3 December 2017.

**Guruvayoorappan C (Assistant Professor)**, elected for Early Career Research (ECR) Award, 2017 of SERB (DST) (14 July 2017).

**Preethi Sara George (Associate Professor)**, received best poster award for the paper 'Trends in incidence rates and age at diagnosis of tobacco related cancers in Thiruvananthapuram Taluk' in the 33rd Annual Review Meeting of National Cancer Registry Programme, Govt. of India, AIMS, Kochi, 28-30 November 2017.

**Rachel Cherian Koshy (Professor)**, received best international abstract award for the abstract 'Efficacy of dexmedetomidine for endotracheal tube tolerance, analgesia and sedation: a prospective double blind controlled study' at Global Conference on Peri operative Medicine: Care of the Cancer Patient, hosted by Department of Anaesthesiology, University of Texas, MD Anderson Cancer Center, 29 November-3 December 2017.

**Rajani RV (Staff Nurse)**, received ONAI peer review award 2017. (5 May 2017)

## Trainees

**Archana Nair (MD Anaesthesia student)**, secured first prize for the paper, 'Effect of BIS monitoring on sevoflurane consumption in patients undergoing breast cancer surgeries under GA', RACE, Chennai. (February 2018).

**Christo Rajan (Research Scholar)**, awarded PhD by University of Kerala for the thesis 'Study of the significance of miRNA expression pattern in oral carcinoma' (February 2018).

**Krishnachandran R (Research Scholar)**, received best poster award at the 30th Kerala Science Congress, Kannur, 28-30 January 2018.

**Kumar BG (MD Anaesthesia student)**, secured second prize for the e-poster, 'Major oncosurgery, chemotherapy, WPW syndrome-sinister combination, safe anaesthesia', at the Annual State Conference of ISA Kerala Chapter, Kozhikode, 14-15 October 2017.

**Kumar BG & Vinoth Kumar Elumalai (MD Anaesthesia students)**, secured second prize in PG quiz at NICE: Neuroanaesthesia Conference organised by SCTIMST, 24 September 2017.

**Veena P (MD Anaesthesia student)**, awarded a fellowship for a week training in regional nerve block in orthopaedics, at Apollo Hospital, Bengaluru, 5-11 March 2018.

**Vinoth Kumar Elumalai (MD Anaesthesia student)**, secured first prize in PG Quiz and third prize for the poster, 'Safe peri-operative management of patient with incidental massive thrombus in pulmonary artery bifurcation associated with sarcoma hand', at South Zone Conference of Indian Society of Anaesthesiology at Trichy, 4-6 August 2017.

## Functions, Workshops & Conferences organised

Sl. No.	Name of Programme	Date
1	International Workshop on Simulation Based Education	30 July-2 August 2017
2	10th TCS Annual Meeting and Flow Cytometry Workshops: Applications of flow cytometry in health and disease	28-31 October 2017
3	International Workshop on Precision Radiotherapy: Paediatric Oncology	2-3 December 2017
4	Basic Medical Statistics for Clinicians, training course by IARC & RCC	7-10 December 2017
5	IMPACT VISTA 2018: Vision to the Airway	20-21 January 2018
6	World Cancer Day	4 February 2018
7	KUHS Updates: Major Advances in Oncology: Academic Staff College, Kerala University of Health Sciences	3 March 2018

## Distinguished visitors/Talks delivered

No.	Name of visitor	Date of visit
1	Dr. Padma Shastry, Principal Scientist, National Centre for Cell Sciences, Pune. Talk: 'The expanding potential of Mammalian Target of Rapamycin (mTOR) pathways as a therapeutic target for glioblastoma (GBM)'.	4 April 2017
2	Dr. Malcolm A. Moore (Ex-Chief Editor of Asia Pacific Journal of Cancer Prevention)	9 February 2018
3	Dr. M.K.C. Nair, Hon'ble Vice Chancellor, Kerala University of Health Sciences	3 March 2018
4	Dr. M.V. Pillai, Clinical Professor of Oncology, Thomas Jefferson University, Philadelphia, USA. Talk: 'Major advances in oncology'.	3 March 2018



# GALLERY



Inauguration of 'International Workshop on Simulation Based Education' by Dr. Ashoka Balakrishnan from National University of Health, Singapore. 30 July 2017



Inauguration of 'IMPACT VISTA 2018: Vision to the Airway' by Dr. K. Jayasree, Additional Director (Academic), 20-21 January 2018.

# Conferences, Training Programmes and Meetings Attended & Papers Presented by Staff & Students

## INTERNATIONAL

Sl. No.	Delegate	Conference/Meeting	Date & Venue	Paper/Talk/Poster presented/Delegate's status
1	Aleyamma Mathew	39th Annual Scientific Meeting of the International Association of Cancer Registries (IACR)	17-19 Oct 2017, Jaarbeurs Supernova, Utrecht, The Netherlands	Paper: Epidemiologic transition of cancer in Kerala, South India.
2	Anoop TM	ESMO Preceptorship in Gastro intestinal Tumours	14-16 Nov 2017, Singapore	Delegate
		ESMO Preceptorship in Immuno Oncology	20-21 Nov 2017, Singapore	Delegate
3	Bipin T.Varghese	World Thyroid Cancer Congress	27- 30 July 2017, Boston, USA	Paper: Dual base line imaging with ultrasonography (USG) and Contrast Enhanced Computed tomography (CECT) for precision mapping in thyroid cancer surgery.
4	Deepthi Boddu	12th St Jude Viva Forum and Pre-Conference Workshop in Pediatric Oncology Solid tumors	10-11 Mar 2018, National University Hospital, Singapore	Poster: Effect of imatinib on growth in children with chronic myeloid leukaemia.
5	Divya Raj	Advanced training in Maxillofacial Prosthetic Rehabilitation	01 Jan-04 Feb 2018, National Dental Centre, Singapore	Trainee
6	Elizabeth Mathew lype	8th Emirates Otorhinolaryngology Meeting	04-07 Jan 2018, Dubai	Talk: Voice rehabilitation after laryngectomy.
7	Jagathnath Krishna K M	38th Annual Conference of the International Society for Clinical Biostatistics	09-13 July 2017, Vigo, Spain	Paper: Modified weighted Kaplan-Meier cancer survival estimate for data with higher loss to follow-up.
8	Jayakrishnan R	National Cancer Institute (NCI) Summer Curriculum course on Principles and Practice of Cancer Prevention and Control	10 July-04 Aug 2017, Maryland, USA	Delegate
9	Mira Wagh	Live Surgery Workshop Intra-operative Radiotherapy	24-25 Aug 2017, University Malaya Medical Centre, Kuala Lumpur, Malaysia	Delegate

10	Preethi Sara George	39th Annual Scientific Meeting of the International Association of Cancer Registries (IACR)	17-19 Oct 2017, Jaarbeurs Supernova, Utrecht, The Netherlands	Paper: Health disparities in oral, lung and prostate cancers among men using geographic information system (GIS).
11	Rachel Cherian Koshy	Global Conference on Peri-operative Care of the Cancer Patient	29 Nov-03 Dec 2017, MD Anderson Cancer Center, Texas	Paper: Efficacy of dexmedetomidine for endotracheal tube tolerance, analgesia and sedation: a prospective double blind controlled study.
12	Rajitha L	ESMO ASIA 2017 Congress	17-19 Nov 2017, Singapore	Poster: FLT 3 mutation and its prognostic significance in newly diagnosed acute myeloid leukaemia in adults.
13	Ramadas K	International Cancer Screening Network Meeting	20 June 2017, Washington	Invited Speaker
14	Rejnish Kumar R	9th Muscat International Oncology Conference	11-13 Oct 2017, Muscat	Talk: Laryngeal preservation in head & neck malignancies
15	Shwetha Seetharam, Gopakumar KG, Rumesch Chandar	12th St Jude Viva Forum and Pre Conference Workshop in Pediatric Oncology Solid tumors	10-11 Mar 2018, National University Hospital, Singapore	Delegates
16	Vijayalakshmi K	9th Muscat International Oncology Conference	11-13 Oct 2017, Royal Hospital, Muscat	Talk: Transfusion support in oncology.

## NATIONAL

Sl. No.	Delegate/s	Conference/Meeting	Date & Venue	Paper/Talk/Poster presented/ Delegate's status
1	Abeesh P	ADDMI 2017: International Conference on Advances in Degenerative Diseases and Molecular Interventions	23-24 Nov 2017, Thiruvananthapuram	Poster: Inhibition of Dalton's lymphoma ascites induced solid and ascites tumor models using <i>Canavalia gladiata</i> L.
2	Akhila Raj TV	National Symposium on Genetics in Clinical Medicine	15-17 Sept 2017, Jubilee Mission Medical College and Research Institute, Trissur	Paper: Identification of different cytogenetic groups in AML: combined conventional and molecular cytogenetic study.
		Indo-US Symposium on Human Genetic Disorders of Pre and Postnatal Growth	08-10 Dec 2017, Thiruvananthapuram	Paper: Novel complex chromosomal abnormality involving both paternal and maternal copies of chromosome 9 in B- lymphocytic leukaemia: A case study with complete cytogenetic profile.
3	Akhila Raj TV, Geetha Raj, Priya G	International Workshop on Human Chromosomes	9-10 Jan 2018, Thiruvananthapuram	Delegates
4	Aleyamma Mathew	XXXIII Annual Review Meeting of NCRP-NCDIR (ICMR)	28-30 Nov 2017, AIMS, Kochi	Presented PBCR, Thiruvananthapuram and HBCR, RCC reports.
		13th Indian Society for Colposcopy and Cervical Pathology Conference	10-11 Mar 2018, Bengaluru	Invited talk: Transition in the incidence and pattern of gynecological cancers.
		Medical statistics for Clinicians: training course conducted by the International Agency for Research on Cancer, Lyon, France in collaboration with Regional Cancer Centre	08-10 Dec 2017, Thiruvananthapuram	Faculty
5	Amita R	Transmedcon 2017	03-05 Nov 2017, Lucknow	Talk: Analysis of donor satisfaction and their intention to future donation.
		Training on Quality Management Systems	Sept 2017, NIMHANS, Bengaluru	Delegate
6	Anila KR	Hands-on Workshop on Molecular testing in Lung Cancer	12-13 Aug 2017, TMH, Mumbai	Delegate
		47 <sup>th</sup> Annual Conference of Indian Academy of Cytologists and pre-conference CME	10-13 Nov 2017, NEIGRIHMS, Shillong	Paper: Papillary lesions of breast: A critical review of cytomorphological features with histopathological correlation.
7	Anoop TM	ASCO Updates	14-16 July 2017, Chandigarh	Delegate
8	Anila KR, Renu S	Annual CME of IAP-ID-Update on Salivary Gland Pathology	08 Oct 2017, AFMC, Pune	Delegates
9	Anupama Susmitha	Introductory Lectures in Oncology Nursing	17-19 Aug 2017, Dr. B. Borooah Cancer Institute Guwahati, Assam	Talk: Breast cancer prevention strategies, flap nursing care, infection prevention practices and head and neck exercises for patients undergoing surgery.

10	Arun Sankar	Strengthening Policies Towards Gastric Cancer Prevention and Treatment: Initiating a Dialogue, Indian Oncology Foundation	08 April 2017, Gurgaon	Talk: Patient education in gastric cancer
		AROI Kerala Chapter Meeting	22 Oct 2017, Kottayam	Talk: Management of Stage III lung cancer
11	Bhagyalakshmi Ramesh	C-AURA: Cadaveric Advanced Ultrasound guided Regional Anaesthesia	28 Feb-01 Mar 2018, AIIMS, New Delhi	Delegate
12	Binitha R	ASH Updates	07 Jan 2018, Kochi	Faculty Talk: Paediatric leukaemia
13	Bipin T.Varghese	International Association of Oral Oncologists (IAOO)	17-20 May 2017, Bengaluru	Faculty, chaired session. Poster: Updates on submental artery island flap for intraoral reconstruction.
		17th Annual conference of the FHNO	15-17 Sept 2017, TMH, Mumbai	Faculty Talk: Non-surgical management of oral cancers & e-poster on stapler laryngectomy.
		ISTSCON 2017: 2nd National Conference of the Indian Society of Thyroid Surgeons	16-17 Nov 2017, Vellore	Faculty Talk: Dual base line imaging in preoperative assessment in thyroid cancer: Chairman for session on management of iodine metastatic lesions, radiation therapy in thyroid cancers and voice management in thyroid cancers.
14	Chandramohan K	Upper GI Cancer Surgery Conference	14 Apr 2017, Ahmedabad	Panelist in extent of lymphadenectomy for gastric cancer and neoadjuvant treatment protocols for esophageal cancer.
		2 <sup>nd</sup> Indian Cancer Congress	8-12 Nov 2017, Bengaluru	Talk: Year end review in colorectal cancer.
		ASICON 2017: Annual Conference of Association of Surgeons of India	25-30 Dec 2017, Jaipur	Talks: 1. Translation and validation of quality of life instruments for esophagogastric junction cancers. 2. Immunological effects of laparoscopic colorectal surgery: A leap in the lap.
		Year end review conducted by Lung Cancer Consortium	15-17 Dec 2017, Mumbai	Faculty in panel discussion on advanced lung cancer.
		Kerala Association of Surgical Oncologists State meet	17-18 Feb 2018, Kozhikode	Talk: Extended resection in colorectal cancer
		Indian Association of Surgical Oncologists Midterm Meeting	02-04 Mar 2018, Madurai	Moderator: panel discussion on stomach cancer.
15	Cherian Koshy	25th International Conference of Indian Association of Palliative Care	23-25 Feb 2018, AIIMS, New Delhi	Delegate

16	Deepthi Boddu	Workshop on Solid Tumours	29-30 Apr 2017, TMH, Mumbai	Delegate
17	Deepthi J. Prabhu	ISACON 2017: 33 <sup>rd</sup> Annual South zone Conference of Indian Society of Anaesthesiologists	04-06 Aug 2017, Trichy	Delegate
		Perioperative Nutrition Update	28 Oct 2017, Chennai	Delegate
18	Elizabeth Mathew Iype	International Association of Oral Oncologists (IAOO) Meeting	17-20 May 2017, Bengaluru	Delegate
		17th FHNO- Annual Conference	20-23 Sept 2017, Mumbai	Chaired Sessions
		2nd Indian Cancer Congress	8-12 Nov 2017, Bengaluru	Chaired session
19	Francis V. James	ICON Delhi	15-17 Sept 2017, New Delhi	Delegate
		Indian Cancer Congress 2017	08-12 Nov 2017, Bengaluru	Delegate
20	Geethi MH	AROI Kerala Chapter Meeting	22 Oct 2017, Kottayam	Poster: An unusual case of Peritoneal metastasis from primary adenocarcinoma lung.
21	Gigi Thomas	50th Kerala State Dental Conference	26-28 January, Kochi	Delegate
		29th National Conference of Indian Academy of Oral Medicine and Radiology	01-03 Dec 2017, Ghaziabad	Paper: An evaluation of three prognostic biomarkers in the risk assessment of leukoplakia.
22	Guruprasad CS	ASH Updates	07 Jan 2018, Kochi	Delegate
23	Hariharan S	National Symposium on Genetics in Clinical Medicine	15-17 Sept 2017, Jubilee Mission Medical College and Research Institute, Trissur	Paper: Molecular cytogenetics in cancer diagnosis and prognosis.
		Indo-US Symposium on Human Genetic Disorders of Pre and Postnatal Growth	08-10 Dec 2017, Mascot Hotel Thiruvananthapuram	Talk: Application of various cytogenetic techniques in the diagnosis of cancer.
		International Workshop on Human Chromosomes	09-10 Jan 2018, University College, Thiruvananthapuram	Talk 1: Human chromosome preparation from peripheral blood. Talk 2: Bone marrow chromosome preparation for leukaemia diagnosis.
		30 <sup>th</sup> Kerala Science Congress	28-30 Jan 2018, Govt. Brennen College, Thalassery, Kannur	Delegate
		National Workshop on Flow Cytometry	12-16 Mar 2018, Dept. of Biotechnology, University of Kerala	Talk: Importance of flow cytometry in cancer diagnosis.
		National Seminar on New Horizons in Cancer Treatment and Prevention: From Bench to Bed side	17 Mar 2018, SN College, Kollam	Talk: Importance of cytogenetics in cancer diagnosis.
24	Harish S, Rony Benson, Vishnu H	Decoding breast Cancer: A recap of Milan	18-20 Aug 2017, Pune	Delegate

25	Jagathnath Krishna K M	Workshop on Population Based Cancer Survival Study on Cancer of the Breast, Cervix, Head & Neck	14-15 March 2018, NCDIR, Bengaluru	Delegate
26	Jayakrishnan R	World Non Communicable Disease Congress	04-06 Nov 2017, Chandigarh	Invited talk: Interventions for smokeless tobacco cessation in Kerala, India.
		Kerala Cancer Control Strategy Dissemination meeting organized by the Government of Kerala and World Health Organization	27 Nov 2017, Thiruvananthapuram	Delegate
27	Jayalekshmi P	XXXIII Annual Review Meeting of NCRP-NCDIR (ICMR)	28-30 Nov 2017, AIMS, Kochi	Talk: Cancer incidence & mortality in Kollam for the period: 2012-2016. Poster: Cancer in radiation area, Karunagappally, Kerala, India.
28	Jayapriya G	International CME in Pathology, Histopathology & Cytopathology	02-04 Feb 2018, Goa	Paper: Head and neck angiosarcomas: a clinicopathological study.
29	Jayasree K, Anitha Mathews, Anila KR	Pre-EBM CME on Recent Advances in Head and Neck Pathology	22 Feb 2018, TMH, Mumbai	Delegates
30	John S	MEDRECON 2018: 18th National conference on Medical Records & Health Information Transformation in context of Digital India	15-16 Mar 2018, Maharaja Agrasen Institute of Technology, Delhi	Delegate
31	Joseph Vimal	Advanced Hands on Training in Proteomics involving MALDI and LC-MS/MS analysis	31 July-03 Aug 2017, Cancer Institute, Adayar	Delegate
32	Kalavathy MC	XXXIII Annual Review Meeting of NCRP-NCDIR (ICMR)	28-30 Nov 2017, AIMS, Kochi	Paper: Prevalence and risk factors of high-grade squamous intra-epithelial lesions in a community-based screening programme in Thiruvananthapuram.
33	Kannan S	7th International Conference on Translational Cancer Research	08-11 Feb 2018, Chennai	Chaired a session
34	Krishnachandran R	Indo-US Symposium on Human Genetic Disorders of Pre and Postnatal Growth	08-10 Dec 2017, Thiruvananthapuram	Poster: Clinical and prognostic impact of additional chromosome abnormalities in patients with advanced stage chronic myelogenous leukaemia.
		30 <sup>th</sup> Kerala Science Congress	28-30 Jan 2018, Govt. Brennen College, Thalassery, Kannur	Poster: A comparative analysis of cytogenetic and molecular factors in different phases of chronic myeloid leukaemia.
35	Lakshmi Haridas	ASH 2017 update	Dec 2017, MVR Cancer Centre, Kozhikode,	Panelist
36	Lakshmi Haridas, Rona Joseph P	Indian Cooperative Oncology Network Meeting	23 Mar 2018, Kochi	Delegates

37	Lakshmi S	DBT sponsored National Seminar on Cancer Biology: A Mathematical Approach	10 Nov 2017, Kongu Engineering College, Erode.	Talk: Recent advances and research issues in cancer biology.
		7th International Conference on Translational Cancer Research	08-11 Feb 2018, IIT, Chennai	Delegate
38	Madhu Muralee	ASI Regional Refresher Course	21-23 July 2017, Chennai	Talk: Breast cancer.
		ASICON 2017: Annual Conference of Association of Surgeons of India	25-30 Dec 2017, Jaipur	Talk: Reptroperitoneal sarcoma.
39	Madhu Muralee, Siva Ranjith, Geethi MH	2nd Indian Cancer Congress	08-12 Nov 2017, Bengaluru	Delegates
40	Malu Rafi	AROI Kerala Chapter Meeting	22 Oct 2017, Kottayam	Talk: AJCC 8th edition staging for head and neck cancers
41	Mayadevi L	Three months Certificate course Entero Stomal Therapy	11 Sept - 09 Dec 2017, TMC, Mumbai	Delegate
42	Mira Wagh	Hands on Cadaveric Training Programme: Segmental Resection of Liver	23 June 2017, Coimbatore	Delegate
		An Update on Hepato-Pancreato-biliary Surgery	24-26 June 2017, Coimbatore	Delegate
43	Paul Augustine, Rexeena Bhargavan, Rona Joseph P	Year in Review: Breast Cancer Conference 2018	10-11 Feb 2018, Mumbai	Delegates
44	Preethi G. Nath	30 <sup>th</sup> Kerala Science Congress	28-30 Jan 2018, Govt. Brennen College, Thalassery, Kannur	Poster: Prognostic significance of FLT3 mutation and cytogenetic profiling of children with <i>de novo</i> AML.
45	Preethi Sara George, Jagathnath Krishna K M	XXXIII Annual Review Meeting of NCRP-NCDIR (ICMR)	28-30 Nov 2017, AIMS, Kochi	Delegates
46	Preethi Sara George	International Conference on Recent Advances in Statistical Methodology with Applications in Clinical and Official Statistics 2018	03-05 Jan 2018, Pala, Kottayam	Invited talk: Application of data mining methods in cancer survival
47	Preethi TR	Mysteries of Female Genital Tract	28-29 Apr 2017, AFMC, Pune	Poster: Small cell carcinoma ovary - hypercalcaemic type: A report of three cases.
		International CME in Gynaecological Pathology: Recent advances and Updates	04-05 Nov 2017, Indo-American Cancer Institute and Research Centre, Hyderabad	Poster: Endometrioid carcinoma with spindle cell areas.
48	Priya A	AllMS Interventional Radiology course	08-09 April 2017, New Delhi	Delegate
		AOCR 2018: 17 <sup>th</sup> Asian Oceanian Congress of Radiology	25-28 Jan 2018, Mumbai	Paper: Retrospective study of diagnostic performance of 18F-FDG PET-CT in cases referred as carcinoma of unknown primary.



49	Priya G	National Symposium on Genetics in Clinical Medicine	15-17 Sept 2017, Jubilee Mission Medical College and Research Institute, Trissur	Paper: The importance of Cytogenetics and Fluorescence In Situ Hybridization in the detection of BCR-ABL fusion gene in CML patients.
50	Priya KL	Physical Impairment arising from Breast Cancer: Prevention, Detection & Management	08-09 Apr 2017, TMH, Mumbai	Delegate
51	Priyakumari T	PHOCON 2017: Paediatric Haematology Oncology Conference	24- 26 Nov 2017, Kolkata	Chaired session Talk: Brain tumours in the young: the RCC experience.
52	Priya Mary Jacob	DERMACON 2018: 46 <sup>th</sup> National Conference of Indian Association of Dermatologists	19 Jan 2018, Kochi	Invited faculty. Talk: Relevance of flow cytometry in dermatology
53	Rachel Cherian Koshy	Indian Society of Anaesthesiologists National CME	27 Aug 2017, Thiruvananthapuram	Chaired session
		BEORATE: Bangalore Exam ORiented Anaesthesia Training Programme	09-11 Mar 2018, Bengaluru	Faculty
54	Radhika Devi B	AOA Bengaluru National Conference of Association of Obstetric Anesthesiologists	30 Sept – 02 Oct 2017, Bengaluru	Paper: Critical care is critical in obstetric anesthesia. Near miss maternal mortality: A success story.
55	Raghukumar P, Saju B	Pre-Conference workshop on Advanced Treatment Planning and Biological Optimization with Eclipse	05-06 July 2017, CMC, Vellore	Delegates
56	Raghu Ram K. Nair, Raghukumar P, Saju B, Sharika V. Menon	Association of Medical Physicists of India, Kerala Chapter Meeting	13 Aug 2017, Kochi	Delegates
57	Ramadas K	6 <sup>th</sup> World Congress of International Academy of Oral Oncology	17-20 May 2017, Bengaluru	Invited Speaker
		AROI Kerala Chapter Meeting	22 Oct 2017, Kottayam	Invited Speaker
58	Rari P. Moni	International CME in Gynaecological Pathology: Recent Advances and updates	04-05 Nov 2017, Hyderabad	Delegate
59	Rasmi RR	ADDMI 2017: International Conference on Advances in Degenerative Diseases and Molecular Interventions	23-24 Nov 2017, Thiruvananthapuram	Poster: Radiotherapy associated damage following exposure of mice to whole thorax irradiation with and without prednisone.
60	Raveendran Pillai K	7 <sup>th</sup> International Conference on Translational Cancer Research	08-11 Feb 2018, Chennai	Delegate
61	Rekha A. Nair	Hemonc Update	24-26 Nov 2017, Delhi	Invited faculty. Talk: Whats new in PTCL?
62	Rema P	8th Annual Asia Oceania Organization on Genital Infection and Neoplasia (AOGIN) India Conference	09-10 Sept 2017, Lucknow	Talk: Performance of colposcopic scoring by modified IFCPC terminology in diagnosing CIN.
		Trivandrum Cancer Congress- 3	07-08 Oct 2017, Thiruvananthapuram	Talk: Management of gynaecological cancers
		KASO Annual State Meet	18 Feb 2018, Kozhikode	Talk: Lymphadenectomy in gynaecological cancers

63	Renu S	47 <sup>th</sup> Annual Conference of Indian Academy of Cytologists and pre-conference CME	10-13 Nov 2017, NEIGRIHMS, Shillong	Paper: Cytomorphological spectrum of ultrasound guided fine needle aspiration cytology of liver lesions, and the role of cell block preparation immunohistochemistry in the diagnosis: an analysis of 638 consecutive aspirations.
64	Rona Joseph P	ASH 2017 Update	Dec 2017, MVR Cancer Centre, Kozhikode	Delegate
		ICMR Meeting	22 Feb 2018, Kochi	Delegate
65	Rumesh Chandar	PHOCON 2017: Paediatric Haematology Oncology Conference	24-26 Nov 2017, Kolkata	Delegate
66	Sakthivel KM	Indo-US Symposium on Human Genetic Disorders of Pre and Postnatal Growth	08-10 Dec 2017, Thiruvananthapuram	Poster: Identification of different cytogenetic patterns in patients with AML: A study from south India.
67	Sethulekshmi S	National Conference of Indian Society of Anaesthesiologists	25-29 Nov 2017, Kolkata	Paper: Comparison of intravenous induction with propofol versus inhalational induction with sevoflurane: a prospective RCT.
68	Shaji Thomas	Indian Cancer Congress	08-12 Nov 2017, Bengaluru	Talk: Supraclavicular flaps in head and neck reconstructions.
		Association of Plastic Surgeons of India, Kerala State Conference	20-22 Mar 2018, Kottayam	Talk: Reconstructive options after head and neck cancer resections.
69	Sheeja K	8th Asian Association of Schools of Pharmacy (AASP) Conference	27-29 Oct 2017, JSS University, Mysuru	Poster: Anticancer potential of garcinone E on oral cancer cell line.
70	Sheeja K, Abeesh P, Dhanisha SS, Vishnu Walsan K	National Workshop on Flow Cytometry	12-16 Mar 2018, Dept. of Biotechnology, University of Kerala	Delegates
71	Shiji R	ICONN 2017: 4th International Conference on Nanoscience and Nanotechnology	09-11 Aug 2017, SRM University, Chennai	Paper: Polysaccharide-doxorubicin nanoconjugates for tumor-selective drug release.
		30 <sup>th</sup> Kerala Science Congress	28-30 Jan 2018, Govt. Brennen College, Thalassery, Kannur	Paper: Polysaccharide coated superparamagnetic iron oxide nanoparticles for folate receptor targeted methotrexate delivery.
72	Shijikumari NG	CAN-REHAAB 2017: Evaluation And Management of Swallowing Disorders in Head and Neck Cancer	08-09 Apr 2017, TMH, Mumbai	Delegate
73	Shiny George, Deepa AS	OT Personal Training Course	08-09 July 2017, TMH, Mumbai	Delegate
74	Sindhu Nair P	International CME in Gynaecological Pathology: Recent Advances and Updates	04-05 Nov 2017, Indo-American Cancer Institute and Research Centre, Hyderabad	Paper: Benign metastasising leiomyomata presenting synchronously at two unusual sites: a case report.
75	Sinto MS	30th Kerala Science Congress	28-30 Jan 2018, Govt. Brennen College, Thalassery, Kannur	Poster: NFκB p65/κBα autoregulatory loop plays significant role in oral cancer progression.

76	Sreelekha R	Introductory Lectures in Oncology Nursing	17-19 Aug 2017, Dr. B. Borooah Cancer Institute, Guwahati, Assam	Talk: Newer diagnosis in cancer; psychosocial reactions to cancer and lymphedema management.
		International Conference of Oncology Nursing	10 Jan 2018, SRM University, Chennai	Talk: Advanced nursing practices in oncology.
77	Sreelekha TT	ABMC6: 6th Asian Biomaterials Congress	25-27 Oct 2017, Thiruvananthapuram	Paper: Theranostic applications of galactoxyloglucan from Tamarind seed kernel.
78	Suchetha S	Trivandrum Cancer Congress-3	07-08 Oct 2017, Thiruvananthapuram	Talk: Management of gynaecological cancers
79	Sudha P	Anaesthesiologists National CME	27 Aug 2017, Thiruvananthapuram	Delegate
80	Sugeeth MT	Torrent Young Scholar Award Zonal Round	Feb 2018, Chennai	Paper: Burkitt's lymphoma in adolescents and adults: Clinical characteristics and treatment outcome.
81	Sugeeth MT, Vishnu H	Suns Platform for Education Awareness and Knowledge (SPEAK) Conference	17 Dec 2017, Mumbai	Delegates
82	Sugeeth MT, Harish S, Vishnu H	COPE : Cancer Institute (WIA) Orientation Program for Exam Going Postgraduates	17 Feb 2018, Chennai	Delegates
83	Sujathan K	4th National conference of Society for Indian Academy of Medical Genetics	08-10 Dec 2017, Thiruvananthapuram	Paper: Accumulation of mutated p53 and Gal-3 indicates aggressive tumor biology in breast cancers of Indian women.
		30 <sup>th</sup> Kerala Science Congress	28-30 Jan 2018, Govt. Brennen College, Thalassery, Kannur	Paper: A new insight on non-invasive label free diagnosis of the cervical pre-cancers by metabolomics and genomic profiling using differential SERS fingerprinting.
		7th International Conference on Translational Cancer Research	08-11 Feb 2018, Chennai	Paper: <i>Simarouba glauca</i> and <i>Annona squamosa</i> induce cytotoxicity in human cancer cells.
		National Conference on Advanced Bio-Therapeutic Application in Life Science	24 Feb 2018, Ulunderpet, Tamil Nadu	Invited Talk: Biotechnology and cancer control.
84	Sunilkumar S	NCISRT 2017: 4th National Conference of Indian Society of Radiographers and Technologist	07-09 Sept 2017, Aizawl	Talk: Radiation therapy: concepts.
		ISRT (WB): West Bengal Chapter State Conference	25 Feb 2018, Jokah, Kolkata	Talk: Fractionation in radiotherapy.
85	Sunitha Kumari UP	National Conference of ISRT	08-09 Sept 2017, Aizawl	Paper: Image guided radiotherapy: CA prostate.
86	Swapna R. Nath	National Anaerobic Workshop: Exploring the less explored	08-09 Sept 2017, KMC, Manipal	Delegate
		Stewardship Competancies for Clinical Microbiologists	13-14 Oct 2017, KMC, Manipal	Delegate
87	Thayal Singh Elias, Shaiju VS	38th Annual Conference of Association of Medical Physicists of India	04-07 Nov 2017, Jaipur	Delegates

88	Veena P	National Conference of Indian Society of Anaesthesiologists	25-29 Nov 2017, Kolkata	Paper: A prospective double blind RCT to study the efficacy of oral pregabalin as premedication in reducing acute post-operative pain in head and neck oncosurgical patients.
89	Venugopal A, Sudha P, Subha R	One day National CME organized by of Indian Society of Anaesthesiologists Trivandrum city branch	27 Aug 2017, SCTIMST, Thiruvananthapuram	Delegates
90	Venugopal A	ISACON KERALA 2017: 41st Annual Conference of Indian Society of Anaesthesiologists Kerala State Chapter	14-15 Oct 2017, Kozhikode	Delegate
		TMC-DAC 2017. National Conference on Difficult Airway Management	01-03 Dec 2017, TMH Mumbai	Delegate
91	Viji S. Pillai, Bhagyalakshmi Ramesh	AORA 2017: Annual Conference of the Academy of Regional Anaesthesia of India	08-10 Sept 2017, Indore	Delegates
92	Vishnu Walsan K	ADDMI 2017: International Conference on Advances in Degenerative Diseases and Molecular Interventions	23-24 Nov 2017, Thiruvananthapuram	Delegate
93	Zhenia Gopalakrishnan, Shaiju VS, Sharika V. Menon	Workshop on Quality Assurance of Advanced Imaging Systems used in Radiodiagnosis and Radiotherapy	23-24 Feb 2018, Mumbai	Delegates

# ONGOING RESEARCH PROJECTS

## EXTRAMURAL

Sl. No.	Principal Investigator	Project Title	Funded by	Status
<b>BREAST</b>				
1	Beela Sarah Mathew	Adjuvant Tamoxifen in breast cancer Longer Against Shorter (ATLAS).	Oxford University	Completed
<i>654 patients randomized, 268 patients expired.</i>				
2	Rajeev KR	ADD-ASPIRIN - A Phase III, double blind, placebo-controlled, randomized trial assessing the effects of aspirin on disease recurrence and survival after primary therapy in common non-metastatic solid tumours.	MRC , UK CANCER RESEARCH , NHS, NCRI, TMH Mumbai	Ongoing
<i>24 screened, 21 screen failure, 3 randomized.</i>				
3	Ramadas K	Randomised controlled evaluation of clinical early detection in the control of breast cancer in low-and medium- resource settings.	IARC, Lyon, France	Screening Completed. Patients are on follow up.
<i>Initiated in 2006.Total participants 1,61,48.Total Screened- 74,472. Breast cancers identified : Intervention arm- 327, Control arm- 254</i>				
<b>CHEST &amp; GASTRO-INTESTINAL</b>				
4	Mira Wagh	Multicentric case study in carcinogenic and non-carcinogenic polycyclic aromatic hydrocarbons and its impact on lung cancers: Role of smoking and occupational exposure.	Science and Engineering Research Board, DST, Govt. of India	Ongoing
<b>GYNAEC &amp; GENITO-URINARY</b>				
5	Rema P	MTA mediated invasion of stem like cells: implications in endometrial cancer.	DBT, Govt. of India	Completed
<b>HEAD &amp; NECK</b>				
6	Paul Sebastian	Phase III, double blind, placebo controlled study of post-operative adjuvant concurrent chemo-radiotherapy with or without nimotuzumab for stage 3/4 head and neck squamous cell carcinoma.	National Cancer Centre, Singapore	Ongoing
7	Bipin T.Varghese	Development of an indigenous voice prosthesis for rehabilitation of laryngectomies and its clinical evaluation.	Kerala State Council For Science, Technology & Environment.	Ongoing
<i>Even as further clinical outcomes and validation studies of developed protocol for voice restoration among laryngectomies generated as a major outcome of the previous KSCSTE funded work are progressing at the head and neck surgical service of the RCC, design development and testing have been completed at Biomedical Technology wing of SCTIMST with 3 concepts as planned in my current study proposal which was presented at the group monitoring workshop of the KSCSTE at Sasthra Bhavan, Thiruvananthapuram.</i>				
8	Ramadas K	Estimation of tobacco attributable mortality in Kerala.	IARC, Lyon, France	Ongoing

## Ongoing Research Projects

9	Ramadas K	Role of human papillomavirus infection and other co-factors in the aetiology of head and neck cancer in Europe and India (HPV-AHEAD).	IARC, Lyon, France	Completed
<i>Initiated in 2013 &amp; completed in 2017. No: of Patients enrolled for Retrospective Study:482 No: of Patients enrolled for Prospective Study:932</i>				
10	Ramadas K	Role of human papillomavirus infection and other co-factors in the aetiology of head and neck cancer in India	Indian Council of Medical Research, Govt. of India	Ongoing
<i>The study has recruited 100 patients. The combined positivity for HPV16 DNA and p16 overexpression was noted in 27 cases (31%).</i>				
<b>CANCER EPIDEMIOLOGY &amp; CANCER REGISTRY</b>				
11	Paul Sebastian	Comparative study of genetic, clinical and epidemiological factors of breast cancer in Indian population.	Indian Council of Medical Research, Govt. of India	Ongoing
<i>It is a Multi centric Epidemiological study to evaluate the risk factors and genomic basis of breast cancer in India with the specific objective to determine Life-style, clinical, Hormonal and other factors associated with breast cancer &amp; to identify the mutational landscape of breast cancer (exome &amp; transcriptome with validation).</i>				
12	Paul Sebastian	Pattern of care and survival studies in cancers of cervix, female breast and head and neck.	Indian Council of Medical Research, Govt. of India	Ongoing
<i>Hospital based cancer survival used to evaluate the care provided in the hospital and it is named as, Pattern of Care and Survival Studies (POCSS). Systematic data abstraction on patterns of care and survival in cancers of the uterine cervix, breast and head and neck cancer patients reporting to the RCC has been started since 2006 in collaboration with the NCRP of ICMR and expanded to obtain survival of ovarian cancer by the NCRP in 2017. Nearly 40,000 patient data is abstracted &amp; follow-up information is updated regularly.</i>				
13	Paul Sebastian	Hospital-based cancer registry.	Indian Council of Medical Research, Govt. of India	Ongoing
<i>HBCR of RCC, Thiruvananthapuram is in its 36th year under the network of National Cancer Registry Programme (NCRP), Indian Council of Medical Research (ICMR), Govt. of India.</i>				
14	Aleyamma Mathew	Population Based Cancer Survival Studies (PBCSS).	Indian Council of Medical Research, Govt. of India	Ongoing
<i>Population based cancer survival (PBCS) provides an idea of the effectiveness of the overall cancer control strategy in the registry area. It gives a baseline on impact of cancer and its treatment on the population and help plan health services facilities for improvement of survival. Population Based Cancer Survival Study on Cancers of the Breast, Cervix, Head &amp; Neck is started in the division in 2017 in collaboration with NCRP of ICMR.</i>				
15	Aleyamma Mathew	Population Based Cancer Registry, Thiruvananthapuram.	Indian Council of Medical Research, Govt. of India	Ongoing
<i>PBCR, Thiruvananthapuram covering the entire district (3.3 million populations) is in its 7th year under the network of NCRP (ICMR) in 2018. Crude cancer incidence rate (180.1 and 181.1 per 100,000 males and females respectively for the year 2016</i>				
<b>CANCER RESEARCH</b>				
16	Kannan S	Biology of NFkB and STAT3 transcription factors in oral carcinogenesis.	Kerala State Council for Science, Technology & Environment	Ongoing

	<p><i>As our previous study showed that transcription factors, such as, NFκB and STAT3 were overexpressed in oral carcinoma and its expression status related to the prognosis of the disease. Hence, the present study focused on the role of NFκB and STAT3 transcription factors in oral cancer progression. Expression analysis at mRNA and protein level showed that NFκB and STAT3 transcription factors are co-expressed in oral cancer cell lines. Co-expression status leads to the hypothesis that there is a presence of molecular cross – talk between NFκB and STAT3 signalling pathways in oral cancer. Silencing of either NFκB or STAT3 impairs various cellular activities of oral cancer cells. We also planned to further explore the NFκB or STAT3 signalling biology by focusing NFκB or STAT3 target genes in oral cancer.</i></p>			
17	Kannan S	Delineate the biological significance of miRNAs altered in oral carcinoma.	DBT, Govt. of India	Ongoing
	<p><i>Previous study from our lab, has been formulated a miRNA signature for oral cancer by profiling miRNA expression in oral cancer tissue and the adjacent normal tissue. The present study aims to validate the miRNA signature in established oral cancer cell lines, to unravel the biological significance of altered miRNAs in oral carcinogenesis using various in vitro techniques. Currently the functional significance of hsa-miR-144-3p, which was found to be significantly down regulated in oral cancer, is carrying out by ectopically expressing miRNA mimic in oral cancer cell lines.</i></p>			
18	Sujathan K	CerviSCAN: Image analysis for reliable and cost effective cancer detection.	Swedish Research Link, Govt. of Sweden.	Ongoing
	<p><i>Fourier ptychography was found to be useful for extracting chromatin texture details from cytology samples for obtaining Malignancy Associated Changes in normal looking cells seen adjacent to malignant cells. This information will be tried in computerized Pap smear analysis system to increase the sensitivity of this method.</i></p>			
19	Sujathan K	Study of the significance of DNA replication licensing proteins as markers of lung cancer and its precursors.	DBT, Govt. of India	Ongoing
	<p><i>Developed a robust technique to extract the whole cell content of sputum without any cell distortion. Malignant cells in sputum have been characterized with DNA replication licensing proteins. This information, after experimental validation can be translated in the clinical sputum cytology practice to supplement the conventional sputum cytology. Differential diagnostic markers of lung adenocarcinoma in sputum samples have been defined, which will be very helpful for sub-typing Non- Small Cell Lung Carcinomas.</i></p>			
20	Sujathan K	Significance of Surface Enhance Raman Scattering techniques in identifying squamous cell carcinoma and its precursor lesions in cervical smear.	CSIR, Govt. of India	Ongoing
	<p><i>We have demonstrated a label free ultrasensitive technique to generate a differential spectrum for the identification of normal, SIL and squamous cell carcinoma of the cervix employing SERS modality where in colloidal gold nanoparticle was used as the SERS substrate. We have envisaged to fabricate a portable handheld micro Raman system which will translate the validated spectral pattern for cervical cancer screening.</i></p>			
21	Sujathan K	Development of Multiplexing detection platform for breast cancer biomarkers by non-invasive Surface Enhanced Raman Scattering Nanoprobe.	DST, Govt. of India	Ongoing
	<p><i>This project to construct a nanoparticle probe constituted on gold and silver coated gold nanoparticles (40- 50 nm) which will be anchored with Raman reporter molecule and encapsulated with biocompatible polymer. The surface of the polymer coating will be further conjugated with breast cancer specific monoclonal antibodies which is transformed into surface enhanced Raman scattering (SERS)-nanoprobe.</i></p>			
22	Sujathan K	Quantum dots based fluorescent multiplexing platform for histoclinical classification of breast cancers.	DBT, Govt. of India	Ongoing
	<p><i>Breast cancer patients are treated based on ER, PR and HER2 receptor status. Currently, each of these markers is tested independently by immunohistochemistry method. Multiplex analysis of all these markers together on single tissue will reduce time, increase cost effectiveness and reduce labor and reagent consumption. We are trying to develop a multiplex method using quantum dots as well as SERS platform.</i></p>			

23	Lakshmi S	Mutation Analysis of EGFR, KRAS, and BRAF genes in non-small cell lung cancer in Indian population.	Kerala State Council for Science, Technology & Environment	Ongoing
<i>Samples for the study are collected prospectively from newly diagnosed patients with adenocarcinoma. PCR Amplification of EGFR (Exon 18, 19, 29, 21) gene, EGFR Exon Sequencing and Mutation Analysis is being carried out from DNA isolated from these samples.</i>				
24	Lakshmi S	Global high through put methylome and transcriptome profiling for the identification of novel therapeutic targets in TNBC and experimental validation.	DBT Govt. of India	Ongoing
<i>Procured the following TNBC cancer cell lines, MDA-MB-231, SUM1315, SUM190 and Hormone receptor positive cells BT474, ZR-75, MCF -7. Data gathering and manual curation of existing literature is being carried out to generate all the data for internal directory. Assessment of TNBC db leads us to the deduction of data available on TNBC and non-TNBC.</i>				
25	Hariharan S	Clinical relevance of molecular and gene expression signatures in AML patients with normal cytogenetics for a prognostically prioritized molecular classification.	Kerala State Council for Science, Technology & Environment	Ongoing
<i>This study focuses on characterization of molecular mutations that have a prognostic or possible therapeutic impact in AML patients</i>				
26	Hariharan S	Development of indigenous software for karyotyping and chromosome abnormality detection.	Kerala State Council for Science, Technology & Environment	ongoing
<i>This project is aimed to develop indigenous low cost cytogenetic software for karyotyping. The metaphase images were used for developing the software, in collaboration with College of Engineering Karunagappally. Currently the software available is imported from foreign countries and is very costly.</i>				
27	Sreelekha TT	Chemotherapeutics loaded polysaccharide-nanoparticles to overcome drug resistance in cancer cells and to cross blood brain barrier.	CSIR, Govt. of India	Ongoing
<i>The study is exploring the therapeutic efficacy two nanoconjugates; PST-DOX Nps and PST-GOLD-DOX Nps. In vitro cell studies of PST-DOX nanoconjugates on U-87 MG, U-251 and C6 cells exhibited cellular uptake and cytotoxicity similar to that of DOX indicating that the therapeutic effect of DOX is maintained even after nanoencapsulation. Following advanced in vitro and in vivo evaluations; these formulations could significantly improve the therapeutic index and be developed as an efficient cancer nanomedicine.</i>				
28	Sreelekha TT	Preparation and biological evaluation of galactoxyloglucan based scaffolds for stem cell differentiation and tumor reduction.	Kerala State Council for Science, Technology & Environment	Ongoing
<i>This study aims to synthesize polysaccharide based scaffolds via electrospinning, gelation, and lyophilisation as an aid for regenerative medicine. These polymeric scaffolds provide a convenient architecture for the development of 3D culture systems and induced mesenchymal stem cell differentiation. The project has been started in December 2017.</i>				
29	Guruvayoorappan C	Mitigation of radiation induced esophagitis by Pyrazole (1,2, Diazole) from Rhizophora apiculata and its potential application as an effective radioprotector.	DST - SERB Govt. of India	Ongoing
<i>The initial ground work shows that pyrazole could significantly mitigate the inflammation and collagen deposition in the esophagus thereby decreasing the radiation induced esophageal tissue damage.</i>				
30	Sheeja K (BioCare -Women scientist Scheme)	Analysis of therapeutic potential of $\alpha$ -mangostin and garcinone E from Mangosteen against oral cancer metastasis	DBT, Govt. of India	Ongoing



	<p><i>The effect of garcinone E, natural xanthone present in the mangosteen, on oral cancer cells (HSC 4) was analysed and found that it could induce cytotoxicity and inhibit the migration and invasion of cancer cells. The anti-invasive activity was confirmed by the down regulated production of MMP 2 and MMP 9 in the garcinone E treated cells. Real time PCR analysis revealed that garcinone E exerts its anticancer potential through STAT 3 signaling pathway. The experimental validation of the role of garcinone E in inflammatory proteins/pathways is going on.</i></p>			
31	K.M. Saktivel (SERB National Post Doctoral Fellowship)	Analysis of STAG1 (SA1) cohesion mutations in de novo AML patients from India and a comparative study of in vitro culture of AML native blasts and cell lines.	DST, Govt. of India	Ongoing
	<p><i>BM /PB samples were collected from 152 patients. Karyotype and FISH analysis were carried out. Complex/rare chromosomal aberrations were detected in a substantial proportion of AML, which are mainly associated with unfavourable prognosis. A total of 10 de novo patients with AML-M2 subgroup from the cohort of 152 cases were selected and screened for Cohesin gene complex mutation by NGS. No mutation was identified in STAG2, RAD21, SMC1, and SMC3 except STAG1. One case harbouring STAG1 mutation was identified. In order to check the mutation region as hotspot or not, further the STAG1 mutation (exon 16) region was screened using Sanger sequencing in the remaining 142 cases. No STAG1 mutation was detected in 142 cases.</i></p>			
32	Reshma PL (KBC Post-Doctoral fellow)	Paclitaxel loaded polysaccharide-nanoconjugates to overcome drug resistance in cancer cells.	KBC, KSCSTE, Govt. of Kerala	Ongoing
	<p><i>To increase the solubility and bioavailability of Paclitaxel two polysaccharide Paclitaxel nanoconjugates were prepared (CDI-PST-PTX and EPI-PST-PTX). These particles were characterised by TEM, SEM, UV-visible spectroscopy and DLS. Drug release of the nanoparticles were evaluated at different pH and evaluation of cytotoxicity and apoptosis was done. Expression of multi-drug resistance proteins were evaluated in 4T1 cells and nanoparticle treatment was able to reduce the expression of drug efflux pumps PGP and BCRP when compared to parent drug (Paclitaxel).</i></p>			
33	Rasmi RR (KBC Post-Doctoral fellow)	Investigation of the ameliorative effect of 1,2 diazole on radiation induced lung injury and understanding its possible mechanism of action.	KBC, KSCSTE, Govt. of Kerala	Ongoing
	<p><i>Radiation induced lung injury is a common and unavoidable complication of thoracic radiotherapy. The pathogenesis of radiation-induced lung injury is complex and involves a series of events starting from oxidative stress to tissue damage. The initial works carried out by the candidate shows that 1, 2 diazole treatment could decrease the damage caused due to radiation in lungs and the treatment significantly increased the life span of the radiation exposed animals. Further studies on the protective effect of 1,2 diazole on inhibition of lung fibrosis formation and its role in modulating inflammatory mediators are in pipeline.</i></p>			
34	Sreeja Purushothaman	In vitro assessment of the anti-cancer property of Amalaki Rasayanam in triple negative breast cancer and delineation of its molecular mechanism of action.	Kerala State Council for Science, Technology & Environment	Ongoing
	<p><i>The aim of the study is to understand the efficacy of Amalaki rasayanam in the treatment of TNBC. Preliminary results show that it possesses cytotoxic effect on MDA MB 231 cell line. Down regulation of VEGFR1 expression and reduced wound healing property suggests the anti-metastatic property of the compound.</i></p>			
35	Krishna Chandran R (ICMR Senior Research Fellowship)	Identification of prognostic markers to alleviate the therapeutic challenges in advanced phases of CML: a cytogenetic and molecular approach.	Indian Council of Medical Research, Govt. of India	ongoing

	<p><i>In order to understand the mechanism responsible for CML progression from benign chronic phase to fatal blast crisis we carried out both genetic &amp; molecular studies. Chromosomal studies proved that chromosomal aberrations were more common in advanced phases of CML compared to CP, there by suggesting that clonal evolution plays a major role in disease progression of CML. Gene expression analysis by qRT PCR revealed that expression patterns of several genes were altered in AP &amp; BC phases when compared to healthy control groups and CP samples. In this study we try to prove the complex inter play of several mechanisms like the emergence of additional chromosome abnormalities, aberrant BCR/ABL gene rearrangements, BCR/ABL amplification, over expression of cMYC, ABCB1, BCL-2 and down regulation of BAD, C/EBPA and CEBPB genes in the disease evolution and development of drug resistant clone in CML.</i></p>			
<b>COMMUNITY ONCOLOGY</b>				
36	Ramani S.Wesley	Evaluation of early detection of cervical cancer precursors by visual inspection with Lugol's iodine (VILI), visual inspection with acetic acid (VIA) and magnified VIA (VIAM) in Kerala, India.	IARC, Lyon, France & Bill Gates Foundation	Ongoing
37	Ramani S.Wesley	Cervical cancer screening using VIA, VILI for women in the control area of Trivandrum breast cancer screening project.	IARC, Lyon, France	Ongoing
<b>NATURAL BACKGROUND RADIATION CANCER REGISTRY</b>				
38	Paul Sebastian	India- Japan co-operative research programmes on health effects of natural radiation in Karunagappally, Kerala.	Health Research Foundation, Japan	Ongoing
<p><i>The project is continuing with the aim of estimating the health effects of natural radiation in High Background Radiation area (HBRA) Karunagappally, Kerala. Studies concentrating mainly on cancer, Non-cancerous diseases, dose measurements and biological parameters covering the cohort of 4 lakhs population.</i></p>				
39	Raghu Ram K. Nair	Natural Background Radiation Registry (NBRR): Individual & ingested dose estimation.	Health Research Foundation, Japan	Ongoing
<p><i>Dosimetric measurements - ingested and inhaled dose estimation of the residents in HBRA area Karunagappally.</i></p>				
40	Jayalekshmi P	Radiation Epidemiologic studies, Karunagappally, Kerala, India.	Health Research Foundation, Japan	Ongoing
<p><i>Follow up of the residents of HBRA. Migration, Mortality and Cancer Incidence survey undertaken covering 4 lakhs population periodically.</i></p>				
41	Paul Sebastian	Prevalence of cataract in HBRA, Karunagappally.	Health Research Foundation, Japan	Ongoing
<p><i>The project aims to evaluate the prevalence of cataract and lens opacity among the residents of high and low background area. 900 females have undergone eye examinations using slit lamp by ophthalmologist and analysis is ongoing.</i></p>				
42	Paul Sebastian	Prevalence of Atherosclerosis in HBRA, Karunagappally.	Health Research Foundation, Japan	Ongoing
<p><i>The project evaluates the prevalence of atherosclerosis among the residents. CAVI, IMT measurements and biochemical Investigations completed. Analysis and article preparation ongoing.</i></p>				
43	Paul Sebastian	District Cancer Registry.	Indian Council of Medical Research, Govt. of India	Ongoing

	<i>District Cancer Registry supported by NCRP, ICMR provides incidence and pattern of Kollam District. 4000 incident cancer cases &amp; 1600 mortality cases registered during 2017. The major sites among males are lung and prostate and among females breast and thyroid.</i>			
44	Hariharan S	Cytogenetic studies on the effects of chronic low level radiation in the residents of high background radiation areas (HBRA) in Kerala, India.	Health Research Foundation, Japan	Ongoing
	<i>Cytogenetic study is ongoing concentrating on the analysis of unstable chromosomes among high background radiation area (HBRA) residents.</i>			
<b>RADIATION PHYSICS</b>				
45	Thayal Singh Elias	Design and development of indigenous integrated brachytherapy simulator for cancer treatment.	DST, Govt. of India	Ongoing
	<i>Design evaluation of the System being undertaken.</i>			
46	Thayal Singh Elias	Design and fabrication of a head phantom for dosimetric verification of radiotherapy treatment plans.	Kerala State Council for Science, Technology & Environment	Ongoing
	<i>The Ph.D. research work titled 'Design and fabrication of a head phantom for dosimetric verification of radiotherapy treatment plans' is progressing and a prototype head phantom is fabricated. The phantom material used for this prototype is PMMA (Polymethyl Methacrylate). The fabrication is done on a CNC (Computer Numerical Control) machine with high precision. The detector inserts which would able to hold different types of radiation dosimeters are being fabricated. The inserts can able to hold radiation dosimeters such as OSLD, Gafchromic films, and different types of ionization chambers for the absolute and relative dosimetric measurements. The holding mechanism for the phantom is still undergoing. The frame design and drawing is completed and it is ready for the fabrication. The indigenous phantom material development is progressing and which aims to more close to water in terms of physical and radiological properties. The research related discussions are going in a productive manner with the frequent consultation with the experts in this field.</i>			

## OTHER FUNDED PROJECTS

Sl. No.	Principal Investigator	Project title	Funded by	Status
<b>CANCER EPIDEMIOLOGY</b>				
1	Kalavathy MC	Pap-smear screening programme among women attending peripheral cancer detection campaigns in Thiruvananthapuram.	Thiruvananthapuram Corporation, Jilla Panchayats & NGOs	Ongoing
2	Kalavathy MC	Pap-smear screening programme among women with gynecological problems reported in a hospital.	Thiruvananthapuram Corporation & Panchayats	Ongoing
<b>COMMUNITY ONCOLOGY</b>				
3	Sreekumar C	Prevention and control of cancer among the tribal population of Kerala state.	Kerala State Development Corporation for SC & ST	Completed
<b>NATURAL BACKGROUND RADIATION CANCER REGISTRY</b>				
4	Jayalekshmi P	Prevention & cancer control projects.	Grama, Block Panchayats, Karunagappally, Kollam & Pathiyoor Panchayat	Ongoing
	<i>9252 subjects undergone cancer detection in the rural areas of Kollam district. Awareness classes were also undertaken benefitted in motivating the people for early detection.</i>			

## PHARMA/INDUSTRY SPONSORED

Sl. No.	Principal Investigator	Project title	Funded by	Status
<b>BREAST</b>				
1	Beela Sarah Mathew	ALTTO (Adjuvant Lapatinib and/or Trastuzumab Treatment Optimisation) study. A randomised, multi-centre, open-label, phase III study of adjuvant lapatinib, trastuzumab, their sequence and their combination in patients with HER2/ErbB2 positive primary breast cancer.	Glaxo Smith Kline	Ongoing
<i>9 patients randomized , 7 patients are on follow up and 2 patients died</i>				
2	Beela Sarah Mathew	A randomized, open-label, multicenter, phase 3 study of epoetin alfa plus standard supportive care versus standard supportive care in anemic patients with metastatic breast cancer receiving standard chemotherapy.	Johnson & Johnson	Closed out
<i>8 patients randomized, 7 patients died and one patient followed up till study close out.</i>				
<b>CHEST &amp; GASTRO-INTESTINAL</b>				
3	Sajeed A	Aspirin for Dukes C and High Risk Dukes B colorectal cancers. An international, multi-centre, double blind, randomised placebo controlled Phase III trial.	Singapore Clinical Research Institute	Ongoing
4	Sivanandan CD	A Phase II/III Pivotal, Open-label, Randomized, 3 Arm Study to Assess the Efficacy of LNP3794 Monotherapy or in Combination with Docetaxel, Compared with Docetaxel Alone, in Patients with RAS Mutation Positive Locally Advanced and Metastatic Non-Small Cell Lung Cancer	Lupin Ltd	Ongoing
5	Sivanandan CD	Comparing two humanized monoclonal antibodies that target VEGF in combination with mFOLFOX6 in patients with non resectable metastatic colorectal cancer.	Dr. Reddy's Lab	Closed out One patient recruited
<b>GYNAC &amp; GENITO-URINARY</b>				
6	Francis V. James	A single arm, multicentric, open label, efficacy and safety study of Docetaxel Lipid Suspension for Injection of Intas Pharmaceuticals Limited, India in Patients with metastatic castration resistant prostate cancer.	Lambda Therapeutic Research Limited	Ongoing
7	Aswin Kumar	Multicentre, randomized, open label, active-controlled, 2 parallel groups, phase 3 study to compare efficacy and safety masitinib at 7.5 mg/kg/day to dacarbazine in the treatment of patients with non resectable or metastatic stage 3 or 4 melanoma carrying a mutation in the juxta membrane domain of c-kit.	AB Science	Ongoing

## Ongoing Research Projects

8	Aswin Kumar	A prospective, multicenter, randomized, double blind, placebo-controlled, 2-parallel groups, phase 3 study to compare the efficacy and safety of masitinib in combination with docetaxel to placebo in combination with docetaxel in first line metastatic Castrate Resistant Prostate Cancer (mCRPC).	AB Sciences	Ongoing
<b>HAEMATOLOGICAL, LYMPHORETICULAR, BONE &amp; SOFT TISSUE</b>				
9	Geetha N	A phase II study of dasatinib therapy in children and adolescents with newly diagnosed chronic phase chronic myelogenous leukaemia or with Ph+ leukaemias resistant or intolerant to imatinib.	Bristol Myers Squibb	Ongoing
10	Sreejith Nair	A randomized, controlled, double-blind phase III trial to compare the efficacy, safety and pharmacokinetics of GP2013 plus cyclophosphamide, vincristine and prednisone vs. MabThera® plus cyclophosphamide, vincristine, prednisone, followed by GP2013 or MabThera® maintenance therapy in patients with previously untreated, advanced stage follicular lymphoma.	Novartis	Ongoing
11	Anoop TM	A randomized, open-label, phase III study of abemaciclib combined with standard adjuvant endocrine therapy versus standard adjuvant endocrine therapy alone in patients with high risk, node positive, early stage, hormone receptor positive, human epidermal receptor 2 negative, breast cancer: I3Y-MC-JPC	Eli Lilly	Ongoing
12	Rona Joseph P	A randomized, open-label, phase 3 study of abemaciclib combined with standard adjuvant endocrine therapy versus standard adjuvant endocrine therapy alone in patients with high risk, node positive, early stage, hormone receptor positive, human epidermal receptor 2 negative, breast cancer: I3Y-MC-JPCF	Eli Lilly	Ongoing
<b>HEAD &amp; NECK</b>				
13	Rejnish Kumar R	A phase III, open label, randomised, multi-centre study of the effects of leukocyte interleukin injection [Multikine] plus standard of care (surgery + radiotherapy or surgery + concurrent chemoradiotherapy) in subjects with advanced primary squamous cell carcinoma of oral cavity/ soft palate versus standard of care only.	Cell Science	Partial closure done, Awaiting close down
<i>Study has closed recruitment and is on the follow-up phase. A total of 16 patients were screened of which 14 were randomized and 2 patients are on follow up.</i>				

## IN-HOUSE PROJECTS

Sl. No.	Principal Investigator	Project title	Status
<b>ANAESTHESIOLOGY</b>			
1	Rachel Cherian Koshy	Assessment of analgesic efficacy of bilateral superficial cervical block for thyroid surgeries under general anaesthesia.	Ongoing
2	Rachel Cherian Koshy	A prospective observational study on the incidence of post-operative delirium and its association with blood pressure fluctuations in patients undergoing oncosurgery.	Completed
3	Rachel Cherian Koshy	Comparison of ease of endotracheal intubation and laryngeal view between sniffing and ramped positions: a prospective observational study.	Ongoing
4	Rachel Cherian Koshy	Simulation based study to evaluate the efficiency of an improvised video laryngoscope compared to C-MAC D Blade Video laryngoscope.	Ongoing
5	Rachel Cherian Koshy	Retrospective assessment of the post-operative complications of elderly patients who underwent elective major abdominal surgery.	Ongoing
6	Rachel Cherian Koshy	A study on prolonged post-operative fasting and its complications in patients.	Ongoing
7	Mary Thomas	Prediction of survival in head and neck cancer using Charlsons comorbidity index.	Ongoing
8	Mary Thomas	Performance in 6mwt for predicting postoperative pulmonary complications at a tertiary care hospital.	Ongoing
9	Mary Thomas	Effect of Gowgates block on visibility of surgical field and haemodynamic response on carcinoma tongue.	Ongoing
10	Venugopal A	Effects of intravenous dexmedetomidine on perioperative haemodynamics and quality of emergence in patients undergoing head and neck surgery following general anaesthesia: A comparative randomized double blind placebo controlled study.	Ongoing
11	Venugopal A	A comparison of pharyngolaryngeal morbidity following supraglottic airway insertion after the administration of betamethasone gel or lidocaine jelly: an observational study.	Ongoing
12	Venugopal A	Direct laryngoscopy versus video laryngoscopy for nasotracheal intubation in head & neck surgery: A prospective observational study.	Ongoing
13	Venugopal A	Direct laryngoscopy versus video laryngoscopy for expected difficult tracheal intubation: A prospective observational study.	Ongoing
14	Viji S. Pillai	Safety and postoperative analgesic efficacy of posterior TAP block for lower abdominal gynaecological surgeries.	Ongoing
15	Viji S. Pillai	Comparison of nebulized lignocaine and nebulized ketamine in attenuating stress response to intubation and in reducing the incidence of postoperative sore throat.	Ongoing
16	Viji S. Pillai	Audit of paravertebral blocks.	Completed
17	Sudha P	Intravenous and intratracheal lignocaine on airway and hemodynamic response during emergence and extubation following general anaesthesia.	Ongoing
18	Sudha P	A prospective observational study on the predictability of postoperative nausea and vomiting in patients undergoing oncosurgeries under general anaesthesia.	Ongoing
19	Subha R	Effect of BIS monitoring on sevoflurane consumption in patients undergoing breast cancer surgeries under general anaesthesia.	Ongoing
20	Subha R	A survey on post graduate medical education (Anaesthesiology) in India.	Completed
21	Subha R	Cancer relapse in surgical patients who received perioperative blood transfusion: A retrospective analysis.	Completed
22	Bhagyalekshmi R	To study the retention skills of simulation based learning among postgraduate students.	Ongoing

## Ongoing Research Projects

23	Deepthi J. Prabhu	Retrospective audit of the clinical outcome with the intraoperative use of colloids in major oncosurgeries.	Completed
24	Deepthi J. Prabhu	Assessment of quality of hand hygiene and effectiveness of "WHO 6 STEPS" among health care personnel in a tertiary care cancer hospital.	Completed
25	Rajasree O	Validation of translated Malayalam version of Neuropathic Pain Questionnaire short form (NPQ-SF).	Ongoing
26	Rajasree O	Validation of translated Malayalam version of Pain Catastrophizing Scale (PCS).	Ongoing
27	Rajasree O	A prospective study among patients to estimate the prevalence of chronic post-surgical pain (CPSP).	Ongoing
28	Rajasree O	Evaluation of intubation techniques using Shikani optical stylet: A simulation study.	Ongoing
29	Rajasree O	Assessment of the efficacy of ARISCAT scores in predicting the postoperative pulmonary complications in esophagectomy patients at a tertiary cancer hospital: A retrospective analysis.	Ongoing
30	Frenny Ann Philip	Role of preoperative risk stratification in predicting postoperative outcomes in cancer patients undergoing surgery: A prospective cohort study.	Ongoing
31	Radhika Devi B	Randomised control trial to study the effect of Gowgates block on visibility of surgical field and hemodynamic response in patients with carcinoma tongue.	Ongoing
32	Radhika Devi B	Prediction of 5 year survival in oral cavity cancers using Charlsons comorbidity index.	Ongoing
<b>BREAST &amp; CENTRAL NERVOUS SYSTEM</b>			
33	Beela Sarah Mathew	Outcomes of the Treatment of Stage I-III HER2 positive breast cancers at Regional Cancer Centre, Thiruvananthapuram.	Completed/ Article under preparation
34	Beela Sarah Mathew	Impact of subventricular zone (SVZ) irradiation on outcome of patients with glioblastoma multiforme.	Completed and Article published
35	Beela Sarah Mathew	Does addition of postmastectomy radiotherapy improve outcome of patients with pt I-2, N0 triple negative breast cancer as compared to breast conservation therapy?	Submitted for publication
36	Beela Sarah Mathew	Comparison of imaging modalities for the accurate delineation of arteriovenous malformations & evaluation of set up accuracy with reference to frameless stereotactic radiosurgery.	Completed/ Article under preparation
37	Beela Sarah Mathew	Results of curative hypofractionated radiotherapy for stage I-III breast cancer patients.	Ongoing
38	Asha Arjunan	Observational analysis of clinical profile and treatment outcome of newly diagnosed GBM patients.	Completed/ article under preparation
39	Asha Arjunan	Clinical outcome of adjuvant radiotherapy in early stage breast cancer with 1 to 3 positive axillary lymph nodes: A single institution experience.	Ongoing
40	Paul Augustine	Locoregional recurrence and survival outcome in patients with Carcinoma Breast	Ongoing
41	Paul Augustine	Efficiency of endofacial axillary lymphadenectomy in reducing axillary drain output among women with breast cancer undergoing breast conservation surgery in Regional Cancer Centre Thiruvananthapuram.	Ongoing
42	Paul Augustine	Clinico-pathological profile and survival outcome among patients with bilateral breast cancers in a tertiary cancer care centre in Kerala.	Ongoing



## Ongoing Research Projects

43	Paul Augustine	Expression of immunomodulatory molecule PDL-1 (Programmed death ligand-1) in triple negative invasive breast cancer.	Ongoing
44	Paul Augustine	Skin Sparing mastectomy and immediate reconstruction, a retrospective analysis.	Ongoing
45	Kurian Cherian	Comparison of clinicopathological characteristics and survival outcomes of patients with breast cancer who were diagnosed at or less than 40 years with that of more than 40 years.	Ongoing
46	Rexeena Bhargavan	Role of locoregional treatment of the primary site in de novo oligometastatic breast cancer: A prospective observational study.	Ongoing
47	Rexeena Bhargavan	Level III dissection in locally advanced breast cancer following neoadjuvant chemotherapy: A retrospective study.	Ongoing
48	Rexeena Bhargavan	Role of frailty in predicting postoperative outcomes in cancer surgeries: A prospective cohort study.	Ongoing
<b>CANCER EPIDEMIOLOGY</b>			
49	Aleyamma Mathew	The impact of Socioeconomic Status (SES) on stage and survival of gastrointestinal cancer: A comparative study of Canada and South India.	Ongoing
50	Aleyamma Mathew	Reasons for diagnostic delay, treatment refusal/incompleteness, and loss to follow-up: a hospital-based cancer registry study in Thiruvananthapuram, India.	Ongoing
51	Aleyamma Mathew	Role of anthropometric, physical activity and dietary factors on the development of breast cancer: a case-control study.	Ongoing
52	Aleyamma Mathew	Medical history and family history of cancer and the risk of breast cancer: a case-control study.	Ongoing
53	Preethi Sara George	Assessment of cancer density maps for cancer control in Thiruvananthapuram, South India.	Ongoing
54	Preethi Sara George	Reproductive risk factors for breast cancer: a case - control study.	Ongoing
55	Preethi Sara George	Classification and regression tree model in predicting breast cancer survival.	Ongoing
56	Kalavathy MC	Evaluation of Pap smear screening and HPV pattern among women with ASCUS (Atypical Squamous Cells of Undetermined Significance) in Thiruvananthapuram, South Kerala.	Ongoing
57	Jagathnath Krishna KM	Cure rate modeling for cancer survival.	Ongoing
<b>CHEST &amp; GASTRO-INTESTINAL</b>			
58	Madhu Muralee	Early Vs late ileostomy reversal after low anterior resection: a prospective observational study.	Ongoing
59	Madhu Muralee	Pattern of lymphnodal metastasis in terms of various stations in patients undergoing surgery for gastric cancer after neoadjuvant chemotherapy.	Ongoing
60	Madhu Muralee	Incidence and predictors of cCR & pCR and validation of NEO! ADJUVANT in patients undergoing surgery for breast cancer after neo adjuvant chemotherapy.	Completed
61	Sivanandan CD	Short course preoperative radiotherapy for operable adenocarcinoma rectum: A prospective observational study.	Ongoing
62	Sivanandan CD	Dosimetric comparison of 3DCRT and IMRT in radical chemoradiotherapy of squamous cell carcinoma oesophagus.	Ongoing, 8 patients enrolled.
63	Sajeed A	Evaluation of treatment outcome and acute toxicity in patients undergoing adjuvant therapy in ductal carcinoma pancreas: a prospective observational study.	Ongoing
<b><i>Adjuvant chemoradiation was well tolerated by most patients. Adjuvant chemotherapy was associated with more haematological toxicity. Only 77% completed adjuvant chemotherapy.</i></b>			

## Ongoing Research Projects

64	Sajeed A	Treatment response in patients undergoing stereotactic body radiotherapy in non small cell lung cancer: a single institutional prospective observational study.	Ongoing 3 patients enrolled
65	Roshni S	Demographic profile of lung cancer.	Ongoing
<i>To study the demographic and clinico-pathological profile of Lung cancer patients registering in thoracic oncology service of tertiary referral cancer centre (RCC). This is performed as a prospective observational study.</i>			
66	Arun Sankar	Prospective comparative study of dosimetric parameters in Three dimensional Vs Four dimensional CT image acquisition of carcinoma lung.	Ongoing 15 of planned 20 patients enrolled
<b>GYNAEC &amp; GENITO-URINARY</b>			
67	Francis V. James	Observational study of inflammatory markers in cancer of uterine cervix.	Completed
68	Francis V. James	Feasibility of implementing ICRU 89 recommendations in CT image based brachytherapy of cancer cervix.	Ongoing
69	Francis V. James	Prospective study of the level of Programmed death ligand I (PD-L1) expression in carcinoma cervix patients.	Ongoing
70	Aswin Kumar	Role of PET-CT in staging and treatment planning of carcinoma cervix stage IIB-III B.	Ongoing
71	Aswin Kumar	Assessment of the reproducibility of Bladder and Rectal doses with Bladder-Rectum Spacer Balloon [BRSB] Versus Vaginal Gauze Packing [VGP] in high dose rate image-guided brachytherapy for carcinoma cervix.	Ongoing
72	Rema P	Evaluation of Bristow's score and CA125 response in predicting operability during interval cytoreduction.	Completed
73	Rema P	Validation of laparoscopy based score for predicting surgical outcome in patients undergoing interval debulking for advanced ovarian cancer	Completed
74	Rema P	Performance of colposcopic scoring by modified IFCPC terminology for diagnosing cervical intraepithelial neoplasia in a low resource setting.	Ongoing
75	Rema P	Survival outcome and morbidity profile after interval cytoreductive surgery in advanced epithelial ovarian cancers.	Ongoing
76	Rema P	Evaluation of circulating cell free DNA levels in predicting operability during interval cytoreduction for advanced ovarian cancers.	Ongoing
77	Suchetha S	Validation study on feasibility of sentinel lymph node sampling in early carcinoma endometrium.	Ongoing
<b>HAEMATOLOGICAL &amp; LYMPHORETICULAR</b>			
78	Geetha N	P-glycoprotein expression in newly diagnosed acute myeloid leukaemia in adults and its impact on treatment outcome.	Ongoing
79	Geetha N	The prognostic significance myeloid antigen coexpression in adult acute lymphoblastic leukaemia: A follow up study.	Ongoing
80	Geetha N	Serum Cystatin C as prognostic marker in multiple myeloma.	Ongoing
81	Geetha N	Cytogenetic abnormalities and risk stratification of multiple myeloma patients by 'FISH' technique.	Ongoing
82	Geetha N	Outcome of newly diagnosed multiple myeloma with renal dysfunction: A retrospective study.	Ongoing
83	Geetha N	Quality of life and functional outcome in long term survivors of osteosarcoma.	Ongoing
84	Sreejith Nair	Estimation of Plasma Epstein Barr virus DNA in patients with Hodgkin's lymphoma and its correlation with treatment response.	Ongoing

## Ongoing Research Projects

85	Sreejith Nair	A prospective study to evaluate association between normalization of free light chains and outcome in patients with multiple myeloma.	Ongoing
86	Sreejith Nair	A prospective observational study to correlate the association of neutrophil lymphocyte ratio and treatment response in patients with multiple myeloma.	Ongoing
87	Prakash NP	Clinical spectrum and outcome of carbapenem resistant infections in patients with acute leukaemia.	Ongoing
88	Prakash NP	An observational study to evaluate the efficacy of escalated dose of imatinib or a second line tyrosine kinase inhibitor in chronic myeloid leukaemia patients showing treatment failure to standard dose imatinib.	Ongoing
<b>HEAD &amp; NECK</b>			
89	Ramadas K	Frequency of human papillomavirus infection in oral squamous cell carcinoma and its clinical significance: A retrospective study.	Completed
<i>100 HPV positive patients were included in the study. The HPV prevalence was found to be 31%. Combined testing with HPV DNA PCR and P16 assay was found to be a predictor for survival.</i>			
90	Rejnish Kumar R	Dosimetric evaluation of increasing number of arcs in head and neck IMRT: A prospective observational study.	Ongoing
91	Rejnish Kumar R	Molecular dynamics of Epstein Barr Virus in carcinoma nasopharynx.	Completed
<i>36 patients recruited into the study. 34 were analysed. A significant correlation between post treatment DNA titre and disease free survival was demonstrated. There was no relationship between EBV DNA load and EBV antibody titre.</i>			
92	Rejnish Kumar R	Set-up uncertainties at different anatomical levels in IMRT for nasopharyngeal cancer	Completed
<i>A total of 20 patients were included in the dosimetric analysis. The setup uncertainties were found to be different for different anatomical levels of the target volume. This was maximum for the lower neck corresponding to level of C6 vertebral body.</i>			
93	Kainickal CT	Clinical outcome and late toxicity in IMRT treated cases of CA nasopharynx.	Completed
<i>84 patients recruited into the study. Analysis is ongoing</i>			
94	Shaji Thomas	A prospective observational study of outcome of supraclavicular flap in reconstruction of head and neck oncologic defects.	Ongoing
95	Bipin T.Varghese	Prospective randomized studies comparing the efficacy of watch and wait policy with neck dissection in clinical superficial tongue squamous cell cancers with N0 status.	Ongoing
<i>Accrual is slow due to stringent inclusion criteria and high level of study homogeneity as charted out by several internal discussions inside and outside the department and intimated to IRB</i>			
96	Bipin T.Varghese	Salivary neoplasms - therapeutic and functional outcome: a retrospective study.	Ongoing
<i>Audit is ongoing and awaiting final tabulation and analysis</i>			
97	Bipin T.Varghese	Matched pair analysis of outcomes of conventional versus microvascular reconstruction in head and neck cancers.	Ongoing
98	Elizabeth Mathew lype	Ten year survival of patients with well differentiated thyroid cancers: A retrospective analysis.	Ongoing
99	Elizabeth Mathew lype	Treatment outcomes of transoral microlaryngeal CO2 LASER surgery Vs radiation therapy for early glottic carcinoma.	Ongoing
<b>IMAGEOLOGY</b>			
100	Jiji V	Role of Magnetic Resonance Imaging in the preoperative assessment of rectal cancer treated with neoadjuvant chemo radiation.	Ongoing

PAEDIATRIC ONCOLOGY			
I01	Priyakumari T	Long term adverse effects of imatinib in children with chronic myeloid leukaemia.	Ongoing
I02	Priyakumari T	Blood stream infections in children with central venous catheter on chemotherapy: A prospective observational study.	Ongoing
I03	Priyakumari T	Serum immunoglobulin levels in children of acute lymphoblastic leukaemia during maintenance chemotherapy and its correlation with intensity of treatment and infection.	Ongoing
I04	Priyakumari T	Cardio-metabolic complications in long term survivors of childhood leukaemia.	Ongoing
PATHOLOGY			
I05	Jayasree K	Comparative study of the diagnostic indices of IHC Markers CD99 and FLI- 1 in skeletal Ewing's sarcoma and other small round cell tumours of bone.	Completed
I06	Jayasree K	Histological spectrum of giant cell lesions of the bone and its clinico-radiological correlation: a retrospective study.	Completed
I07	Anitha Mathews	Comparison of expression pattern of HR and HER2/neu protein in primary breast carcinoma and synchronous LN metastasis.	Ongoing
I08	Anitha Mathews	Pathological response to neo adjuvant chemotherapy and related changes in patients with carcinoma breast.	Completed
I09	Nileena Nayak	Diagnostic accuracy of FNAC and core needle biopsy in breast carcinoma.	Ongoing
I10	Preethi TR	Clinicopathological analysis of serous borderline tumours and low grade serous carcinomas of ovary: A retrospective study.	Completed
I11	Anila KR	A follow up study of patients undergoing completion thyroidectomy in a tertiary care cancer centre.	Ongoing
I12	Anila KR	Prevalence of BRAF, RAS, RET/PTC and PTEN proto-oncogene mutations in recurrent and aggressive thyroid cancers.	Ongoing
I13	Anila KR	Utility of fascin over-expression as a marker of aggressiveness in squamous cell carcinoma of tongue.	Ongoing
I14	Renu S	Histopathologic assessment of rectal carcinomas after neoadjuvant chemoradiotherapy.	Ongoing
I15	Priya Mary Jacob	Determination of polycyclic aromatic hydrocarbons in lung cancer tissue using a modified QuEChERS extraction and SPE method by GC-MS/MS.	Ongoing
I16	Rari P.Mony	Prospective observational study on lymph nodal harvest in non-fixed wet specimen of rectal malignancy.	Ongoing
I17	Rari P.Mony	A prospective study of accuracy of sentinel lymph node biopsy in squamous cell carcinoma of oral cavity in clinically N0 neck.	Ongoing
I18	Rari P.Mony	Targeting inflammation mediators at the transcriptional level and protection of colon integrity during ulcerative colitis by <i>Cusuta chinensis</i> , <i>Acacia nilotica</i> and umbelliferone.	Ongoing

# PUBLICATIONS

Journal Articles	
1.	<b>Anoop TM, Geetha N, Nair SG, Nambiar RK.</b> 'Free light chain abnormalities in diffuse large B cell lymphoma'. <i>Scholars Journal of Applied Medical Sciences</i> . 2017/5(10C): 4009-12.
2.	Anzar S, <b>Koshy CM</b> , Abraham KM. 'Validation of the Malayalam version of Leeds Assessment of Neuropathic symptoms and signs pain scale in cancer patients in the Regional Cancer Centre, Thiruvananthapuram, Kerala, India'. <i>Indian Journal of Palliative Care</i> . 2017/23(3): 293-9.
3.	<b>Aswathy CG, Hariharan S, Jayalekshmi PA, Krishnachandran R, Nair RR.</b> 'SULT1A1 gene polymorphism in high background radiation areas (HBRA) of Kerala, India'. <i>International Journal of Life Sciences Scientific Research</i> . 2017/3(4): 1262-6.
4.	<b>Bhargavan VR, Chandramohan K, Mathew AP, Nair S.</b> 'Pneumocytoma: a case report and review of literature'. <i>Indian Journal of Surgical Oncology</i> , 2017/8(3): 423-5.
5.	<b>Biba VS, Akhil BS, Remani P, Sujathan K.</b> 'Free radical scavenging properties of <i>Annona squamosa</i> L.'. <i>Asian Pacific Journal of Cancer Prevention</i> . 2017/18(10): 2725-31.
6.	Biba VS, <b>Akhil BS</b> , Suja SR, <b>Sujathan K.</b> 'An exploration of phytochemicals from Simaroubaceae'. <i>Asian Pacific Journal of Cancer Prevention</i> . 2017/18(7): 1765-7.
7.	Bonaventure A, Harewood R, Stiller CA, Gatta G, Clavel J, Stefan DC, Carreira H, Spika D, Marcos-Gragera R, Peris-Bonet R, Pineros M, Sant M, Kuehni CE, Murphy MFG, Coleman MP, Allemani C, <b>Jayalekshmi P, Sebastian P.</b> 'Worldwide comparison of survival from childhood leukaemia for 1995-2009, by subtype, age, and sex (CONCORD-2): a population-based study of individual data for 89 828 children from 198 registries in 53 countries'. <i>Lancet Haematology</i> . 2017/4(5): e202-17.
8.	Del Paggio JC, Peng Y, Wei X, Nanji S, MacDonald HP, <b>Nair CK</b> , Booth CM. 'Population-based study to re-evaluate optimal lymph node yield in colonic cancer'. <i>British Journal of Surgery</i> . 2017/104(8): 1087-96.
9.	Del Paggio JC, Sullivan R, Schrag D, Hopman WM, <b>Azariah B</b> , Pramesh CS, Tannock IF, Booth CM. 'Delivery of meaningful cancer care: a retrospective cohort study assessing cost and benefit with the ASCO and ESMO frameworks'. <i>Lancet Oncology</i> . 2017/18(7): 887-94.
10.	<b>Farha AK</b> , Dhanya SR, Mangalam SN, <b>Remani P.</b> 'Molecular mechanisms of anticancer activity of deoxyelephantopin in cancer cells'. <i>Integrative Medicine Research</i> . 2017/6(2): 190-206.
11.	<b>Geetha N, Lali VS, Haridas L, Sugathan H.</b> 'Isolated intracranial myeloid sarcoma occurring as relapse in acute myeloid leukemia'. <i>Journal of Neurosciences in Rural Practice</i> . 2017/8(3): 466-8.
12.	<b>Geetha N, Lali VS.</b> 'Lymphoblastic lymphoma presenting as bilateral ovarian mass in an adolescent girl'. <i>Journal of Pediatric and Adolescent Gynecology</i> . 2017/30(3): 435-7.
13.	<b>Geetha N, Mathews A, Gopan G, Lali VS.</b> 'Cardiac angiosarcoma: a rare cause for syncope and chest pain'. <i>Scholars Journal of Medical Case Reports</i> . 2017/5(4): 243-5.
14.	<b>Geetha N, Nambiar RK, Kumar BS.</b> 'Solitary plasmacytoma of the humerus'. <i>Iranian Journal of Blood &amp; Cancer</i> . 2017/9(3): 99-100.
15.	<b>Geetha N, Rajan V, Lali VS.</b> 'Rhabdomyosarcoma of the vagina in an adolescent girl'. <i>Journal of Pediatric and Adolescent Gynecology</i> . 2017/30(6): 649-51.
16.	<b>Geetha N, Rajan V, Preethi TR.</b> 'Primitive neuroectodermal tumors of the kidney'. <i>Proceedings (Baylor University Medical Centre)</i> . 2017/30(2): 205-8.
17.	<b>George JK, Biba VS, Sujathan K, Remani P.</b> 'Nature's gift for various remedies: a review on the different medicinal properties of <i>Annona muricata</i> '. <i>European Journal of Pharmaceutical and Medical Research</i> . 2017/4(11): 281-6.
18.	George KC, <b>Anoop TM, Nambiar RK.</b> 'Clinical, epidemiological and diagnostic profile of patients with carcinoma lung: a clinical study'. <i>Scholars Journal of Applied Medical Sciences</i> . 2017/5(9C): 3714-8.
19.	Gheit T, Anantharaman D, Holzinger D, Alemany L, Tous S, Lucas E, Prabhu PR, Pawlita M, Ridder R, Rehm S, Bogers J, Maffini F, Chiocca S, Lloveras B, Kumar RV, <b>Somanathan T</b> , de Sanjosé S, Castellsague X, Arbyn M, Brennan P, Sankaranarayanan R, Pillai MR, Gangane N, Tommasino M. 'Role of mucosal high-risk human papillomavirus types in head and neck cancers in central India'. <i>International Journal of Cancer</i> . 2017/141(1): 143-51.

20.	<b>Gopakumar KG, Priyakumari T, Nampoothiri S, Bali D, Raj J, Jayasudha AV, Ramachandran K.</b> 'Wolman disease: a mimic of infant leukemia'. Journal of Pediatric Hematology Oncology. 2017/39(8): e489-92.
21.	<b>Gopan G, Anoop TM, Prakash NP, Nambiar RK, Krishnachandran R.</b> 'Fibroblast growth factor receptor-I associated myeloproliferative neoplasm and T-lymphoblastic lymphoma'. Indian Journal of Pathology and Microbiology. 2017/60(4): 593-5.
22.	<b>Janardhan D, Varghese BT, Iype EM, Thomas S.</b> 'Hypothyroidism in surgically treated T4 hypopharyngeal and laryngeal cancers'. International Journal of Otorhinolaryngology and Head and Neck Surgery. 2017/3(4): 968-71.
23.	Jayaprakash B, <b>Nair SP</b> , Achuthan A, Mathew J. 'Type and mode of diagnosis of carcinoma lung in a tertiary care centre: one year experience'. International Journal of Research in Medical Sciences. 2017/5(11): 4891-4.
24.	Jayaprakash B, <b>Nair SP</b> , Jacob AM. 'Ewing's sarcoma presenting as pleural effusion: a case report'. Pulmon. 2017/19(1): 32-4.
25.	<b>Jayasudha AV, Nair RA, Nambiar RK.</b> 'Primary classical Hodgkin lymphoma of rectum: report of an extremely rare case and review of the literature'. Indian Journal of Pathology and Microbiology. 2017/60(3): 412-4.
26.	<b>John PK, Janardhan D, Thomas S, George NA, Varghese BT.</b> 'Gnathic osteosarcomas: an institutional experience of 10 cases'. IOSR Journal of Dental and Medical Sciences. 2017/16(5): 98-101.
27.	Johnson LR, <b>Rema P, Suchetha S, Mony RP, Jayapriya G, Kumar A, Ahamed MI.</b> 'Adenoid cystic carcinoma of vulva: 11 years' single-institution experience'. The Journal of Obstetrics and Gynecology of India. 2017/67(3): 196-201.
28.	Johnson LR, <b>Suchetha S, Rema P, Mony RP, Sebastian JE, Ahamed MI.</b> 'Growing teratoma syndrome following treatment for immature teratoma of ovary: a case report and review of literature'. The Journal of Obstetrics and Gynecology of India. 2017/67(4): 295-8.
29.	Joseph MM, Nair JB, Adukkadan RN, Hari N, <b>Pillai KR, Nair AJ, Maiti KK, Sreelekha TT.</b> 'Exploration of biogenic nano-chemobiotics fabricated by silver nanoparticle and galactoxylglucan with an efficient biodistribution in solid tumor investigated by SERS fingerprinting'. ACS Applied Materials and Interfaces. 2017/9(23): 19578-90.
30.	<b>Joseph MM, Nair JB, Maiti KK, Sreelekha TT.</b> 'Plasmonically enhanced galactoxylglucan endowed gold nanoparticles exposed tumor targeting biodistribution envisaged in a surface-enhanced Raman scattering platform'. Biomacromolecules. 2017/18(12): 4041-53.
31.	<b>Joseph R, Geetha N, Sugathan H, Lali VS.</b> 'Mixed phenotypic acute leukemia with leukemia cutis and neuroleukemiosis'. Proceedings (Baylor University Medical Centre). 2017/30(3): 334-5.
32.	Kamath PR, Joseph MM, Abdul Salam AA, <b>Sreelekha TT, Sunil D, Biswas S, Pai KSR.</b> 'Bisindole-oxadiazole hybrids, T3P®-mediated synthesis, and appraisal of their apoptotic, antimetastatic, and computational Bcl-2 binding potential'. Journal of Biochemical and Molecular Toxicology. 2017/31(11): Article ID: e21962.
33.	Kapali AS, <b>Chandramohan K, Jayasudha AV.</b> 'A prospective study of distal microscopic spread in rectal cancer after neoadjuvant chemoradiation in pinned and unpinned specimen'. Indian Journal of Surgical Oncology. 2017/8(4): 469-73.
34.	<b>Krishna JKM, Mathew A, George PS.</b> 'Cancer survival estimates due to non-uniform loss to follow up and non-proportional hazards'. Asian Pacific Journal of Cancer Prevention. 2017/18(6): 1493-7.
35.	<b>Mathew A, George PS, James FV, Jayakumar KL, Kumar A, Arjunan A, Mathew BS.</b> 'Age at diagnosis and mortality due to breast and cervix uteri cancers in Thiruvananthapuram, South India'. BAOJ Cancer Research and Therapy. 2017/3(3): Article ID: 041
36.	<b>Mathew A, George PS, Kalavathy MC, Padmakumari G, Krishna JKM, Sebastian P.</b> 'Cancer incidence and mortality: District Cancer Registry, Thiruvananthapuram, South India'. Asian Pacific Journal of Cancer Prevention. 2017/18(6): 1485-91.
37.	<b>Mathew A, George PS, Krishna JKM, Kalavathy MC, Sebastian P.</b> 'Urban-rural gradients in cancer incidence and mortality among males in Thiruvananthapuram, Kerala'. BAOJ Cancer Research and Therapy. 2017/2(2): Article ID: 029.
38.	Mena M, Lloveras B, Tous S, Bogers J, Maffini F, Gangane N, Vijaykumar R, <b>Somanathan T, Lucas E, Anantharaman D, Gheit T, Castellsague X, Pawlita M, Sanjose SD, Alemany L, Tommasino M, HPV-AHEAD study group.</b> 'Development and validation of a protocol for optimizing the use of paraffin blocks in molecular epidemiological studies: the example from the HPV-AHEAD study'. Plos One. 2017/12(10): Article ID: e0184520.
39.	<b>Milan A, Jayadevan ER, Saju B, Koshy SM, George PS, Arjunan A.</b> 'Radiosurgery for arteriovenous malformations using micro-multi-leaf collimators: analyses of outcome'. Indian Journal of Neurosurgery. 2017/6(2): 95-8.

40.	<b>Milan A, Rafi M, Saju B, Kumar RR, Kainickal CT, Bhattacharya T, Ramadas K.</b> 'Setup uncertainties and PTV margins at different anatomical levels in intensity modulated radiotherapy for nasopharyngeal cancer'. Reports of Practical Oncology and Radiotherapy. 2017/22(5): 396-401.
41.	<b>Milan A, Rajeev KR, James FV, Kumar A, Mathews A, Sarin B, Shaiju VS, Jayaprakash PG.</b> 'The impact of patient positioning and use of belly board on small bowel toxicity in patients receiving pelvic radiotherapy for gynecological malignancies'. Journal of Cancer Research and Therapeutics. 2017/13(3): 519-23.
42.	<b>Muralee M, Acharya NR, Sudham WM, Mathew AP, Cherian K, Chandramohan K, Augustine P, Ahamed MI.</b> 'Triple test: a predictor of anastomotic integrity in patients undergoing low anterior resection after neoadjuvant chemoradiotherapy'. Indian Journal of Surgical Oncology. 2017/8(4): 506-10.
43.	<b>Muralee M, Singh R, Mathew AP, Cherian K, Chandramohan K, Augustine P, Roshni S, Ahamed MI.</b> 'Radical treatment of rectal cancer in elderly is feasible than feared: results from a tertiary care centre'. Indian Journal of Surgical Oncology. 2017/8(4): 479-83.
44.	<b>Nair LM, Kumar RR, Kainickal CT, Rafi M, George PS, Krishna JKM, Ramadas K.</b> 'Phase IIb trial comparing two concurrent cisplatin schedules in locally advanced head and neck cancer'. The South Asian Journal of Cancer. 2017/6(2): 64-8.
45.	<b>Nair M, Paul LT, Latha PT, Kusumakumary P.</b> 'Parents' knowledge and attitude regarding their child's cancer and effectiveness of initial disease counseling in pediatric oncology patients'. Indian Journal of Palliative Care. 2017/23(4): 393-8.
46.	Nair P, Aggarwal V, Kumar K, <b>Mathews A</b> , Abraham M, Nair S. 'Calvarial Ewing's sarcoma, a rare childhood tumor: report and a review of literature'. Neurology India. 2017/65(4): 904-6.
47.	<b>Nair RA, Jayasudha AV, Vasudevan A, Jacob PM, Sukumaran R.</b> 'Profiling of peripheral T-cell lymphomas in Kerala, South India: a 5-year study'. Indian Journal of Pathology and Microbiology. 2017/60(2): 206-8.
48.	<b>Nair SP, Nair RA, Kusumakumary P, Jacob PM, Jayasudha AV, Jayasree K.</b> 'CD34 positive pediatric T lymphoblastic leukemia: a tertiary care centre experience'. Journal of Medical Science and Clinical Research. 2017/5(7): 25502-7.
49.	<b>Nambiar RK, Ajith PS, Arjunan A.</b> 'Unilateral proptosis as the initial manifestation of malignancy'. Journal of Egyptian National Cancer Institute. 2017/29(3): 159-61.
50.	<b>Nambiar RK, Anoop TM, Prakash NP.</b> 'A lady with exertional dyspnoea due to cardiac metastases'. Cancer Reports and Reviews. 2017/1(3): Article ID: 1000118.
51.	<b>Nambiar RK, Anoop TM, Prakash NP.</b> 'CLL with CNS involvement: a diagnostic dilemma'. International Journal of Cancer Biology and Clinical Oncology. 2017/1(1): 16-8.
52.	<b>Nambiar RK, Anoop TM, Prakash NP.</b> 'Rhabdomyosarcoma mimicking acute leukemia in a 42 year old female'. Cancer Reports and Review. 2017/1(4): Article ID: 1000121.
53.	<b>Nambiar RK, Dalus D, Srikumar A.</b> 'Cardiovascular syndrome: a rare cause of hoarseness in a patient with a history of pulmonary tuberculosis'. Sultan Qaboos University Medical Journal. 2017/17(4): e481-3.
54.	<b>Nambiar RK, Geetha N, Lali VS, Devi RN.</b> 'Lymphoblastic lymphoma of the palate'. Proceedings (Baylor University Medical Centre). 2017/30(4): 445-6.
55.	<b>Nambiar RK, Nair SG, Mathew SP, Anoop TM.</b> 'Ptosis and diplopia: sole manifestations in multiple myeloma'. Annals of Blood. 2017/2(5): Article ID:9.
56.	<b>Nambiar RK, Nair SG.</b> 'Cavernous sinus syndrome'. Proceedings (Baylor University Medical Centre). 2017/30(4): 455-6.
57.	<b>Nambiar RK, Roshni S, Lijeesh AL, Mony RP.</b> 'Sarcomatoid carcinoma of pancreas with liver metastases: a case report with review of literature'. Journal of Medicine and Therapeutics. 2017/1(3): Article ID: 1000112.
58.	<b>Nath SR, Jayapalan S, Nair H, Kusumakumary P, Prema NS, Priyakumari T, Rajamohan K.</b> 'Comparative diagnostic test evaluation of serum procalcitonin and C-reactive protein in suspected bloodstream infections in children with cancer'. Journal of Medical Microbiology. 2017/66(5): 622-7.
59.	<b>Puthusseri J, Geetha N, Preethi TR, Jayapriya G.</b> 'Ewing's sarcoma of the trachea in an adolescent girl'. Proceedings (Baylor University Medical Centre). 2017/30(3): 325-6.

60.	<b>Rajasree O, Sahadevan S, Koshy RC.</b> 'Effect of oral pregabalin as pre medication in reducing acute post-operative pain in head and neck oncosurgical patients: a prospective, double blind randomized control study'. <i>European Journal of Pharmaceutical and Medical Research.</i> 2017/4(9): 632-8.
61.	Ramya AN, <b>Joseph MM,</b> Maniganda S, Karunakaran V, <b>Sreelekha TT,</b> Maiti KK. 'Emergence of gold-mesoporous silica hybrid nanotheranostics: dox-encoded, folate targeted chemotherapy with modulation of SERS fingerprinting for apoptosis toward tumor eradication'. <i>Small.</i> 2017/13(31): Article ID: 1700819
62.	<b>Rasmi RR, Guruvayoorappan C.</b> 'Pulmonary injury associated with radiation therapy: assessment, complications and therapeutic targets'. <i>Biomedicine and Pharmacotherapy.</i> 2017/89: 1092-104.
63.	<b>Rema P, Mathew AP, Suchetha S, Ahamed MI.</b> 'Salvage surgery for cervical cancer recurrences'. <i>Indian Journal of Surgical Oncology.</i> 2017/8(2): 146-9.
64.	<b>Sakthivel KM, Hariharan S.</b> 'Regulatory players of DNA damage repair mechanisms: role in cancer chemoresistance'. <i>Biomedicine and Pharmacotherapy.</i> 2017/93: 1238-45.
65.	<b>Sannu A, Resmi R, Mathews A, Mony RP, Prahladan A, James FV.</b> 'Ifosfamide-induced malignancy of ureter and bladder'. <i>Cureus.</i> 2017/9(8): Article ID: e1594.
66.	Sasikumar A, Joy A, Pillai MRA, Alex TM, <b>Geetha N.</b> '68Ga-PSMA PET/CT in osteosarcoma in fibrous dysplasia'. <i>Clinical Nuclear Medicine.</i> 2017/42(6): 446-7.
67.	<b>Sharma N, Tomar T, Mathew AP, Chandramohan K, Preethi TR, Mony RP.</b> 'Aggressive angiomyxoma of inguinoscrotal region mimicking inguinal hernia: a case report'. <i>Indian Journal of Surgery.</i> 2017/79(6): 571-3.
68.	<b>Sugeeth MT, Benson R, Anoop TM.</b> 'Breast carcinoma in thyroid cancer survivors'. <i>Scholars Journal of Medical Case Reports.</i> 2017/5(12): 831-3.
69.	<b>Sugeeth MT, Jayasudha AV, Benson R, Nair SG.</b> 'Toxoplasma lymphadenitis mimicking non-Hodgkin's lymphoma: a case report'. <i>Scholars Journal of Medical Case Reports.</i> 2017/5(9): 593-5.
70.	<b>Sukumaran R, Nair RA, Jacob PM, Jayasudha AV.</b> 'Epidermodysplasia verruciformis associated with peripheral T-cell lymphoma, squamous cell carcinoma, and Langerhans cell histiocytosis'. <i>Clinical Cancer Investigation Journal.</i> 2017/6(3): 174-7.
71.	<b>Sukumaran R, Nair RA, Nair SP.</b> 'Follicular dendritic cell sarcoma of the tonsil: a rare entity'. <i>Clinical Cancer Investigation Journal.</i> 2017/6(2): 137-40.
72.	Suluvooy JK, <b>Sakthivel KM, Guruvayoorappan C,</b> Grace BVM. 'Protective effect of <i>Averrhoa bilimbi</i> L. fruit extract on ulcerative colitis in wistar rats via regulation of inflammatory mediators and cytokines'. <i>Biomedicine &amp; Pharmacotherapy.</i> 2017/91: 1113-21.
73.	<b>Unnikrishnan BS,</b> Joseph MM, <b>Preethi GU, Shiji R, Sreelekha TT.</b> 'Green chemistry approach as a versatile platform for nanoparticles with biomedical applications'. <i>Nanoscience &amp; Nanotechnology-Asia.</i> 2017/7(1): 26-40.
74.	<b>Unnikrishnan P, Geetha N, Kumar BS, Devi N.</b> 'B-Lymphoblastic lymphoma of the rectum'. <i>Proceedings (Baylor University Medical Centre).</i> 2017/30(3): 336-7.
75.	<b>Varghese BT.</b> 'Optimizing outcomes in pharyngoesophageal reconstruction and neck resurfacing: 10-year experience of 294 cases'. <i>Plastic and Reconstructive Surgery.</i> 2017/140(5): 763e.
76.	<b>Varghese S, Joseph MM, Aravind SR, Unnikrishnan BS, Sreelekha TT.</b> 'The inhibitory effect of anti-tumour polysaccharide from <i>Punica granatum</i> on metastasis'. <i>International Journal of Biological Macromolecules.</i> 2017/103(1): 1000-10.
77.	<b>Veena VS, Rajan K, Saritha VN, George PS, Chandramohan K, Jayasree K, Somanathan T, Sujathan K.</b> 'DNA replication licensing proteins for early detection of lung cancer'. <i>Asian Pacific Journal of Cancer Prevention.</i> 2017/18(11): 3041-7.
78.	Allemani C, Matsuda T, Di Carlo V, Harewood R, Matz M, Niksic M, Bonaventure A, Valkov M, Johnson CJ, Esteve J, Ogunbiyi OJ, e Silva GA, Chen WQ, Eser S, Engholm G, Stiller CA, Monnereau A, Woods RR, Visser O, Lim GH, Aitken J, Weir HK, Coleman MP, CONCORD Working Group, <b>Sebastian P, Jayalekshmi P.</b> 'Global surveillance of trends in cancer survival 2000-14 (CONCORD-3): analysis of individual records for 37513025 patients diagnosed with one of 18 cancers from 322 population-based registries in 71 countries'. <i>Lancet.</i> 2018/391(10125): 1023-75.
79.	<b>Anila KR, Chandramohan K, Koshy SM, Jayasree K.</b> 'Diabetic mastopathy: an entity clinically mimicking malignancy: review of a series of three cases'. <i>Clinical Cancer Investigation Journal.</i> 2018/7(1): 23-5.



80.	<b>Anila KR, Nayak N, George PS, Jayasree K.</b> 'Cytomorphologic spectrum of hurthle cell lesions of thyroid: a study of 54 cases'. Gulf Journal of Oncology, 2018/26(1): 6-10.
81.	<b>Balakrishnan M, Mathana V, Bhagyalekshmi R, Krishna JKM.</b> 'A prospective observational study to identify the incidence and predictors of difficult and impossible mask ventilation'. Journal of Medical Science and Clinical Research. 2018/6(2): 1050-7.
82.	BenzyVK, Jasmin EA, <b>Koshy RC</b> , Amal F, Indiradevi KP. 'Relative wave energy based adaptive neuro-fuzzy inference system model for the estimation of depth of anaesthesia'. Journal of Integrative Neuroscience. 2018/17(1): 69-82.
83.	<b>Bhavya SK, Prakash NP, Anoop TM, Nambiar RK.</b> 'Pancytopenia in a young girl with skin lesions'. The Netherlands Journal of Medicine. 2018/76(1): 43.
84.	<b>Chandran A, Pillai VS, Prabhu DJ.</b> 'Ultrasonographic study of the anatomical variations of the internal jugular vein in relation to the common carotid artery'. International Journal of Current Research. 2018/10(3): 66533-7.
85.	<b>Dhanisha SS, Guruvayoorappan C, Drishya S, Abeesh P.</b> 'Mucins: structural diversity, biosynthesis, its role in pathogenesis and as possible therapeutic targets'. Critical Reviews in Oncology/Hematology. 2018/122(1): 98-122.
86.	Divya GM, Zinia N, <b>Balagopal PG, Varghese BT, Iype EM, George NA, Thomas S, Sebastian S.</b> 'Risk factors for post-operative complications in primary oral cancer surgery: a prospective study'. Indian Journal of Surgical Oncology. 2018/9(1): 28-34.
87.	<b>Geetha N, Lali VS, Kumar R.</b> 'Hypereosinophilia: a rare presentation of acute lymphoblastic leukemia'. Journal of Postgraduate Medicine. 2018/64(1): 50-2.
88.	<b>Gopakumar KG, Priyakumari T, Manjusha Nair, Kusumakumary P.</b> 'Jehovah's witness and consent for blood transfusion in a child: the Indian scenario'. Asian Journal of Transfusion Science. 2018/12(1): 78-80.
89.	<b>Gopalakrishnan Z, Nair RR, Kumar RP, Sarin B.</b> 'Dosimetric comparison of treatment plans using physical wedge and enhanced dynamic wedge for the planning of breast radiotherapy'. Journal of Medical Physics. 2018/43(1): 46-51.
90.	Gupta PN, Kunju SM, Baiju R, Koshy AG, Vishwanathan S, <b>George PS</b> , Velappan P. 'Geographical variation in the clinical presentation of endomyocardial fibrosis in India?'. Indian Heart Journal. 2018/70(1): 56-65.
91.	<b>Iype EM, Kumar SN, Kumar SS, Varghese BT, Jose JC.</b> 'Clinicopathological factors of cervical nodal metastasis and the concept of selective lateral neck dissection in the surgical management of carcinoma larynx and hypopharynx and its outcome'. Indian Journal of Surgical Oncology. 2018/9(1): 24-7
92.	<b>Kainickal CT, Aparna MP, Kumar RR.</b> 'Targeted therapy in recurrent or metastatic head and neck carcinoma'. Hospice and Palliative Medicine International Journal. 2018/2(1): 65-70.
93.	<b>Nair VB, Manasa VG, Sinto MS, Jayasree K, James FV, Kannan S.</b> 'Differential expression of microRNAs in uterine cervical cancer and its implications in carcinogenesis: an integrative approach'. International Journal of Gynecological Cancer. 2018/28(3): 553-62.
94.	<b>Nambiar RK</b> , Dalus D, Balan J, Srikumar A. 'Open fontanelles in an elderly man'. Postgraduate Medical Journal. 2018/94(1107): 67
95.	Pillai P, <b>Lakshmi S.</b> 'Significance of KI-67 protein expression in breast cancer'. Indian Journal of Scientific Research. 2018/18(2): 18-21.
96.	<b>Prakash NP, Anoop TM, Nambiar RK, Puthusseri J, Nath SR.</b> 'Invasive aspergillosis in refractory angioimmunoblastic T-cell lymphoma'. Turkish Journal of Hematology. 2018/35(1): 91.
97.	<b>Ranjith S, Muralee M, Sajeed A, Mathew AP, Cherian K, Augustine P, Ahamed MI .</b> 'Anorectal melanoma: experience from a tertiary cancer care centre in South India'. Annals of the Royal College of Surgeons of England. 2018/100(3): 185-9.
98.	<b>Reghu KS, Binitha R, Sugath S, Guruprasad CS, Priyakumari T, Kusumakumary P.</b> 'Methotrexate free chemotherapy and limb salvage surgery for paediatric osteosarcoma in India'. Indian Journal of Orthopaedics. 2018/52(1): 58-64.
99.	<b>Roshni S, Lijeesh AL, Ajith PS, Vasudevan A, Sajeed A, Sivanandan CD, Sankar A, Haridas G.</b> 'Pathologic complete response in locally advanced rectal carcinoma after neo-adjuvant chemoradiation: a single institutional study'. Research and Reports of Medicine. 2018/2(1): Article ID: 1000106.
100.	<b>Roshni S, Lijeesh AL, Kalliyath SB, Sajeed A, Sankar AS, Haridas G, Sivanandan CD, George PS, Mathew A.</b> 'Long term survival of primary mediastinal germ cell tumours: experience from a tertiary cancer center in Kerala'. International Journal of Scientific Research. 2018/7(2): 23-5

101.	<b>Sankar AS</b> , Kapoor R, Kochhar R. 'Radical chemoradiation and intraluminal brachytherapy boost in squamous cell carcinoma of the esophagus'. Journal of Medical Science and Clinical Research. 2018/6(3): 1051-8.
102.	<b>Saritha VN, Veena VS, Krishna JKM, Somanathan T, Sujathan K</b> . 'Significance of DNA replication licensing Proteins (MCM2, MCM5 and CDC6), p16 and p63 as markers of premalignant lesions of the uterine cervix: its usefulness to predict malignant potential'. Asian Pacific Journal of Cancer Prevention. 2018/19(1): 141-8.
103.	<b>Sasikumar G, Koshy RC, Prabhu DJ</b> . 'Thoracic paravertebral block, a suitable and safe adjunct for general anaesthesia, for post-operative pain relief in modified radical mastectomies'. Journal of Medical Science and Clinical Research. 2018/6(3): 447-54.
104.	<b>Sudha P, Subha R, Neelima VS</b> . 'A prospective observational study comparing total intravenous anaesthesia (TIVA) and inhalational anaesthesia for controlled hypotension in radical reconstructive surgeries of oral cancers'. Journal of Medical Science and Clinical Research. 2018/6(1): 31932-42.
<b>Abstracts in Journals</b>	
105.	<b>Babu A, Roshni S</b> . 'Primary adenoid cystic carcinoma of lung: a case report (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S340.
106.	<b>Babu A, Babu G, Sajeed A</b> . 'Orbital metastasis as the initial manifestation of small cell lung cancer: a case report (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S340.
107.	<b>Ibrahim S, Sivanandan CD, Sajeed A, Roshni S</b> . 'Crizotinib induced photosensitive dermatitis: a case report (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S336.
108.	<b>Janardhan D, Thomas S</b> . 'Neopharyngeal augmentation in laryngopharyngectomy with patch supraclavicular flap (Scf) (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S432-3.
109.	<b>Janardhan D, Varghese BT, Babu S</b> . 'Near total laryngectomy - revisited (Institutional experience) (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S433.
110.	<b>Kainickal CT, Odungattu Z, Kumar RR</b> . 'Prospective evaluation of acute toxicity and quality of life of patients undergoing post-operative chemoradiation in oral cancer (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S186.
111.	<b>Kainickal CT, Farida N, Kumar RR</b> . 'Clinical profile and treatment outcome of patients treated with image guided radiotherapy (IGRT) for oropharyngeal carcinoma: a retrospective analysis (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S263.
112.	<b>Kainickal CT, Jose J, Kumar RR</b> . 'Prospective evaluation of acute toxicity and pathological response of patients treated with platinum based induction chemotherapy in locally advanced oral cancer (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S186.
113.	<b>Karthik KS, Mathew AP, Augustine P, Chandramohan K</b> . 'Prevalence of <i>Helicobacter pylori</i> infection in patients with adenocarcinoma of upper gastrointestinal tract, and association of <i>H Pylori</i> status with response to neoadjuvant chemotherapy (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S221.
114.	<b>Karthik KS, Muralee M, Chandramohan K, Augustine P</b> . 'Chyle leak after esophagectomy: a captain's torment with a sinking ship (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S219.
115.	<b>Kulkarni SB, Chandramohan K</b> . 'Immunological effects of laparoscopic colo-rectal surgery: a leap in lap (Indian Cancer Congress - 2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S53.
116.	<b>Kulkarni SB, Sharma N, Sebastian P, George NA</b> . 'Surgical morbidity associated with neck dissection in oral cavity cancers (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S53-4.
117.	<b>Lijeesh AL</b> . 'Adenocarcinoma lung with scalp metastasis: a rare presentation: a case report and the literature search (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S393-4.
118.	<b>Ranjith S, Mathew AP, Muralee M, Cherian K</b> . 'A randomized controlled trial comparing ultrasonic dissection with electrocautery for axillary dissection in breast cancer (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S209.
119.	<b>Sreedhar D, Mathew AP</b> . 'Isolated testicular metastasis in carcinoma prostate: a rare clinical entity (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S166.

120.	<b>Surnare KR, Ahamed MI, Chandramohan K.</b> 'Quality of life after gastrectomy for gastric carcinoma: a prospective study (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S336.
121.	<b>Thomas S, Janardhan D, Tribhuvan VK, Varghese BT.</b> 'Supraclavicular flap: a versatile flap for head and neck defect reconstruction - our experience (Indian Cancer Congress-2017 Abstract)'. Journal of Cancer Research and Therapeutics. 2017/13(Suppl.1): S166.
<b>Conference papers</b>	
122.	<b>Abeesh P, Rashmi RR, Guruvayoorappan C.</b> 'Inhibition of daltons lymphoma ascites induced solid and ascites tumour models using <i>Canavalia gladiata</i> (L)'. In: Proceedings of International Conference on Advances in Degenerative Diseases and Molecular Interventions. Thiruvananthapuram: Society for Research on Degenerative Diseases, 2017: 144-5.
123.	<b>Anila KR, Nayak N, Nair SP, Mony RP, Jayasree K.</b> 'Papillary lesions of breast: a critical review of cytomorphological features with histopathological correlation'. In: Proceedings of 47th Annual Conference of Indian Academy of Cytologists (CYTOCON). Shillong: North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, 2017: 76-7.
124.	<b>Biba VS, Akhil BS, Suja SR, Remani P, Sujathan K.</b> ' <i>Simarouba glauca</i> and <i>Annona squamosa</i> induce cytotoxicity in human cancer cells'. In: Proceedings of 7th International Conference on Translational Cancer Research. Chennai: IIT Madras Society for Translational Cancer Research, 2018: 89.
125.	<b>Chandran RK, Vijay S, Nath PG, Geetha N, Hariharan S.</b> 'A comparative analysis of cytogenetic and molecular factors in different phases of chronic myelogenous leukemia'. In: Proceedings of the 30th Kerala Science Congress. Thalassery: Govt. Brennen College, 2018: 97-8.
126.	<b>Chandran RK, Geetha N, Aswathy CG, Nath PG, Raj A, Hariharan S.</b> 'Clinical and prognostic impact of additional chromosomal abnormalities in patients with advanced stages of chronic myelogenous leukemia'. In: Proceedings of 4th National Conference of Society for Indian Academy of Medical Genetics (SIAMG). Thiruvananthapuram: Department of pediatrics, Govt. Medical College, 2017.
127.	<b>Hariharan S.</b> 'Molecular cytogenetics in cancer diagnosis and prognosis'. In: Proceedings of the National Symposium on Genetics in Clinical Medicine. Thrissur: Jubilee Centre for Medical Research, JMMC & RI, 2017: 108-11
128.	<b>Karunakaran V, Saritha VN, Kumar S, Sujathan K, Maiti KK.</b> 'New insight on non-invasive label free diagnosis of the cervical pre-cancers by metabolomics and genomics profiling using differential SERS finger printing'. In: Proceedings of the 30th Kerala Science Congress. Thalassery: Govt. Brennen College, 2018: 236-7.
129.	<b>Nath PG, Chandran RK, Aswathy CG, Kusumakumary P, Hariharan S.</b> 'Prognostic significance of FLT3 mutation and cytogenetic profiling of children with de novo acute myeloid leukemia'. In: Proceedings of the 30th Kerala Science Congress. Thalassery: Govt. Brennen College, 2018: 253-4.
130.	<b>Preethi GU, Unnikrishnan BS, Archana MG, Sreelekha TT.</b> 'Development of nano-silver doped polysaccharide scaffolds for efficient healing applications'. In: Proceedings of International Seminar on Recent Biochemical Approaches in Therapeutics. Thiruvananthapuram: Dept. of Biochemistry, University of Kerala, 2018: 99-100.
131.	<b>Priya G, Geetha N, Chandran RK, Raj A, Hariharan S.</b> 'The importance of cytogenetics and fluorescent in situ hybridization (FISH) in the detection of BCR-ABL fusion gene in CML patients'. In: Proceedings of the National Symposium on Genetics in Clinical Medicine. Thrissur: Jubilee Centre for Medical Research, JMMC & RI, 2017: 122-6.
132.	<b>Raj A, Geetha N, Sakthivel KM, Priya G, Hariharan S.</b> 'Identification of different cytogenetic groups in acute myeloid leukemia: combined conventional and molecular cytogenetic study'. In: Proceedings of the National Symposium on Genetics in Clinical Medicine. Thrissur: Jubilee Centre for Medical Research, JMMC & RI, 2017: 118-21
133.	<b>Raj A, Sakthivel KM, Geetha N, Gayathri G, Priya G, Hariharan S.</b> 'Novel complex chromosomal abnormality involving both paternal and maternal copies of chromosome 9 in B-lymphocytic leukemia: a case study with complete cytogenetic profile'. In: Proceedings of 4th National Conference of Society for Indian Academy of Medical Genetics (SIAMG). Thiruvananthapuram: Department of Pediatrics, Govt. Medical College, 2017: 127.
134.	<b>Ram J, Saritha VN, Akhil BS, Veena VS, Somanathan T, George PS, Sujathan K.</b> 'Accumulation of mutated P53 and Galectin-3 indicates aggressive tumour biology in breast cancers of Indian women'. In: Proceedings of 4th National conference of Society for Indian Academy of Medical Genetics (SIAMG). Thiruvananthapuram: Department of Pediatrics, Govt. Medical College, 2017: 98.
135.	<b>Rasmi RR, Guruvayoorappan C, Abeesh P.</b> 'Radiotherapy associated damage following exposure of mice to whole thorax irradiation with and without prednisone'. In: Proceedings of International Conference on Advances in Degenerative Diseases and Molecular Interventions. Thiruvananthapuram: Society for Research on Degenerative Diseases, 2017: 177-8.

136.	<b>Sakthivel KM, Geetha N, Chandran RK, Nath PG, Raj A, Priya G, Raj GJA, Mahitha MS, Hariharan S.</b> 'Identification of different cytogenetic patterns in patients with acute myeloid leukemia (AML) : a study from South India'. In: Proceedings of 4th National Conference of Society for Indian Academy of Medical Genetics (SIAMG). Thiruvananthapuram: Department of Pediatrics, Govt. Medical College, 2017: 97.
137.	<b>Shiji R, Joseph MM , Pillai KR, Sreelekha TT.</b> 'Polysaccharide - doxorubicin nanoconjugates for tumor-selective drug release'. In: Proceedings of 4th International Conference on Nanoscience and Nanotechnology (ICONN 2017). Kattankulathur: Dept of Physics and Nanotechnology, 2017: 40.
138.	<b>Shiji R, Sreelekha TT.</b> 'Polysaccharide coated superparamagnetic iron oxide nanoparticles for folate receptor targeted methotrexate delivery'. In: Proceedings of the 30th Kerala Science Congress. Thalassery: Govt. Brennen College, 2018: 97-8.
139.	<b>Sinto MS, Roshan VGD, Kannan S.</b> 'NF KB P65/lkB alpha autoregulatory loop plays significant role in oral cancer progression'. In: Proceedings of the 30th Kerala Science Congress. Thalassery: Govt. Brennen College, 2018: 287-8.
140.	<b>Sukumaran R, Nayak N, Jayasree K, Nair SP, Anila KR, Venugopal M.</b> 'Cytomorphological spectrum of ultrasound guided FNAC of liver lesions and the role of cell block preparation and immunohistochemistry in the diagnosis: an analysis of 638 consecutive aspirations'. In: Proceedings of 47th Annual Conference of Indian Academy of Cytologists (CYTOCON). Shillong: North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, 2017
141.	<b>Sunithakumary UP, Nair RR, Kumar RP, Saju B.</b> 'Image guided radiotherapy: CA prostate'. In: Proceedings of 4th National Conference of ISRT. Mizoram: RIPANS, 2017: 49.
142.	<b>Unnikrishnan BS, Preethi GU, Maya S, Archana MG, Sreelekha TT.</b> 'Cross linked galactoxylglucan iron oxide nanoparticles facilitates macrophage activation for cancer management'. In: Proceedings of International Seminar on Recent Biochemical Approaches in Therapeutics. Thiruvananthapuram: Dept. of Biochemistry, University of Kerala, 2018: 115-6.
<b>Chapters in Books</b>	
143.	<b>Chandramohan K.</b> 'Breast cancer'. In: Beyond: Basic education for young doctors in oncology development/The Cancer Control Foundation of India and KASO. Thiruvananthapuram: The Cancer Control Foundation of India & KASO, 2018: 107-24.
144.	<b>George NA.</b> 'Carcinoma larynx & carcinoma thyroid'. In: Beyond: Basic education for young doctors in oncology development / The Cancer Control Foundation of India and KASO. Thiruvananthapuram: The Cancer Control Foundation of India & KASO, 2018: 95-106.
145.	<b>Jayakrishnan R.</b> 'Tobacco control in India: challenging, yet optimistic'. In: Beyond: Basic education for young doctors in oncology development /The Cancer Control Foundation of India and KASO. Thiruvananthapuram: The Cancer Control Foundation of India & KASO, 2018: 11-22.
146.	<b>Preethi GU, Maya S, Unnikrishnan BS, Sreelekha TT.</b> 'Electrospun nanofibrous scaffolds: a versatile therapeutic tool for cancer management'. In: Handbook of nanofibers/edited by Ahmed Barhoum...et al. Switzerland: Springer, 2018:1-28.
147.	<b>Ramadas K, Abraham SL.</b> 'Oral cancer'. In: Beyond: Basic education for young doctors in oncology development /The Cancer Control Foundation of India and KASO. Thiruvananthapuram: The Cancer Control Foundation of India & KASO, 2018: 78-94.
148.	<b>Ranjith S.</b> 'Colo-rectal cancers'. In: Beyond: Basic education for young doctors in oncology development /The Cancer Control Foundation of India and KASO. Thiruvananthapuram: The Cancer Control Foundation of India & KASO, 2018: 142-53.
149.	<b>Rema P.</b> 'Cervical cancer'. In: Beyond: Basic education for young doctors in oncology development /The Cancer Control Foundation of India and KASO. Thiruvananthapuram: The Cancer Control Foundation of India & KASO, 2018: 125-41.
150.	<b>Sebastian P, Mathew B.</b> 'An introduction to cancer control'. In: Beyond/The Cancer Control Foundation of India and KASO. Thiruvananthapuram: The Cancer Control Foundation of India & KASO, 2018: 1-10.
151.	<b>Thomas G.</b> 'Potentially malignant disorders in oral cavity'. In: Beyond: Basic education for young doctors in oncology development /The Cancer Control Foundation of India and KASO. Thiruvananthapuram: The Cancer Control Foundation of India & KASO, 2018: 65-77.
<b>Theses</b>	
152.	<b>Anju KS.</b> 'Comparison of imaging modalities for the accurate delineation of arteriovenous malformations & evaluation of set up accuracy with reference to frameless stereotactic radiosurgery'. Thrissur: Kerala University of Health Sciences, 2017. 70p. (MD Radiotherapy).

153.	<b>Arya J.</b> 'A prospective observational study on relevance of routine preanesthetic investigations'. Thrissur: Kerala University of Health Sciences, 2017. 60p. (MD Anaesthesiology).
154.	<b>Febina PY.</b> 'Clinicopathological analysis of serous borderline tumors and low grade serous carcinomas of ovary: a retrospective study'. Thrissur: Kerala University of Health Sciences, 2017. 73p. (MD Pathology).
155.	<b>Geethu K.</b> 'A prospective observational study on the incidence of postoperative delirium and its association with intraoperative blood pressure fluctuations in elderly undergoing oncosurgery'. Thrissur: Kerala University of Health Sciences, 2017. 92p. (MD Anaesthesiology).
156.	<b>Jithesh G.</b> 'Assessment of pathological response to neoadjuvant chemotherapy and related changes in patients with carcinoma breast'. Thrissur: Kerala University of Health Sciences, 2017. 59p. (MD Pathology).
157.	<b>Jobin J.</b> 'Evaluation of treatment outcome and acute toxicity in patients undergoing adjuvant therapy in ductal carcinoma pancreas: a prospective observational study'. Thrissur: Kerala University of Health Sciences, 2017. 110p. (MD Radiotherapy).
158.	<b>Krithika E.</b> 'Comparative study of the diagnostic indices of IHC markers - CD99 & FLI- 1 in Ewings's sarcoma (ES) and other small round cell tumors of bone and soft tissue'. Thrissur: Kerala University of Health Sciences, 2017. 170p. (MD Pathology).
159.	<b>Lawrence A.</b> 'Effect of preoperative warming on post induction core temperature and incidence of postoperative shivering in patients undergoing general anaesthesia'. Thrissur: Kerala University of Health Sciences, 2017. 90p. (MD Anaesthesiology).
160.	<b>Munish PK.</b> 'Direct laryngoscopy versus video laryngoscopy for expected difficult tracheal intubation: a prospective observational study'. Thrissur: Kerala University of Health Sciences, 2017. 78p. (MD Anaesthesiology).
161.	<b>Nithiyaanandan N.</b> 'Short course preoperative radiotherapy for operable adenocarcinoma rectum: a prospective observational study'. Thrissur: Kerala University of Health Sciences, 2017. 45p. (MD Radiotherapy).
162.	<b>Nitya P.</b> 'Role of magnetic resonance imaging in the preoperative assessment of rectal cancer treated with neoadjuvant chemoradiation'. Thrissur: Kerala University of Health Sciences, 2017. 88p. (MD Radiodiagnosis).
163.	<b>Reshma P.</b> 'Molecular biomarkers of carcinoma breast: radio-pathological correlation'. Thrissur: Kerala University of Health Sciences, 2017. 75p. (MD Radiodiagnosis).
164.	<b>Saritha VN.</b> 'Proteome analysis of squamous cell carcinoma and precancerous lesions of the uterine cervix'. Thirunelveli: Manonmaniam Sundaranar University, 2017. 270p. (PhD Thesis)
165.	<b>Seetharam S.</b> 'Metabolic emergencies during induction chemotherapy in pediatric patients with acute lymphoblastic leukemia'. Thrissur: Kerala University of Health Sciences, 2017. 64p. (DM Paediatric Oncology).
166.	<b>Sibi MI.</b> 'The effect of preoperative anxiety and depression on postoperative pain in breast cancer surgeries'. Thrissur: Kerala University of Health Sciences, 2017. 89p. (MD Anaesthesiology).

# Administration, Standing Committees & Right to Information

## a. ADMINISTRATION

Director	:	Dr. Paul Sebastian
Additional Director (Administration)	:	Dr. K. Ramadas (from 31.08.2017)
Additional Director (Academic)	:	Dr. P. Kusumakumary (till 31.07.2017)
Additional Director (Academic)	:	Dr. K. Jayasree (from 31.08.2017)
Medical Superintendent	:	Dr. K. Ramadas (till 12.07.2017)
Medical Superintendent	:	Dr. Beela Sarah Mathew (from 12.07.2017)
Deputy Medical Superintendent	:	Dr. Aswin Kumar (till 15.07.2017)

## b. STAFF STRENGTH

Type of Staff	Permanent		Temporary	Daily wages	Deputation		Consultants engaged	Total
	Existing	New Recruits			In	Out		
Academic	111	9	2	....	....	....	4	126
Non-Academic	697	32	27	68	5	2	----	831
<b>Total</b>	<b>807</b>	<b>42</b>	<b>29</b>	<b>68</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>957</b>

## c. ACADEMIC STAFF STRENGTH

Professors-14, Additional Professors-40, Associate Professors-18, Assistant Professors-48

## d. NON-ACADEMIC STAFF

### Administrative Office

Mahesh B (Sri)	Administrative Officer
Lalitha B (Smt.)	Asst. Admin Officer Sr.Gr.
Jumailathu Beevi KM (Smt.)	Office Assistant Sel.Gr.
Remila C K (Smt.)	Office Assistant Sel.Gr.
Snehalatha H B (Smt.)	Office Asst. Sel.Gr
Kalpana Soni S (Smt.)	Office Assistant
Girija K (Smt)	Office Assistant (joined on 20.12.2017)
Padmarajan R (Sri.)	Typist
Sajeesh CK (Sri.)	Clinical Records Assistant
Seethalakshmi P S (Smt.)	Despatcher
Balachandran L (Sri.)	Senior Helper
Suliman S (Sri.)	Hospital Attender
Senan S (Sri)	Senior Helper
Jayasree R (Smt.)	Helper

### Anaesthesiology

Abin Issac (Sri.)	Operation Theatre Technician Sr. Gr
Rajendran Nair P (Sri.)	Operation Theatre Technician

Manju RS (Smt.)	Operation Theatre Technician (resigned 21.9.17)
Kirankumar (Sri.)	Operation Theatre Technician
Santhosh S (Sri.)	Operation Theatre Technician

### Cancer Epidemiology & Bio-statistics

Asha N M (Smt.)	Clerk Gr.I
Prasanth Kumar R K (Sri.)	Data Entry Operator Sr Gr

### Cancer Research

Hareendran N K (Sri.)	Research Assistant Sr Gr
Vikraman Nair K (Sri.)	Senior Animal House Keeper
Sreekumaran Nair P (Sri.)	Driver Sel.Gr.

### Clinical Laboratory

Gangadevi C (Smt.)	Technical Officer (Lab)
Usha J (Smt.)	Technical Officer (Lab)
Helen B (Smt.)	Technical Officer (Lab)
Rajesh K R (Sri.)	Technical Officer (Lab)
Renuka P (Smt.)	Technical Officer (Lab)
Ajaya Kumar R (Sri.)	Lab. Technician Sel.Gr.
Jaya Kumar B (Sri.)	Lab. Technician Sel.Gr.
Riyad R A (Sri.)	Lab. Technician Sel.Gr.

Saneela S (Smt.)	Lab. Technician Sel.Gr.
Sindhumony S (Smt.)	Lab. Technician Sel.Gr.
Sini L S (Smt.)	Lab. Technician Sel.Gr.
Sreelekha V K (Smt.)	Lab. Technician Sel.Gr.
Trophy S (Sri.)	Lab. Technician Sel.Gr.
Veena Devi Thankachy V S (Smt.)	Lab. Technician Sel.Gr.
Beena Rani A S (Sri.)	Lab. Technician
Anil Kumar R (Sri.)	Senior Helper
Gopa Kumar (Sri.)	Senior Helper

### Clinical Services & Medical Records

Chandrika D (Smt.)	Medical Records Officer-I Gr. I
Sreekumar B (Sri.)	Asst. Admn. Officer (CS)
Anil Kumar K (Sri.)	Medical Records Officer -II
Ambily O (Smt.)	Clerk Gr. I
Geetha O (Smt.)	Clerk (MRT)
John S (Sri.)	Clerk (MRT) Gr. I
Jaya Kumar P (Sri.)	Clerk Gr. I
Kumari Bindu P K (Smt.)	Clerk Gr. I
Siju R. Nair (Smt.)	Clerk (MRT)
Sreelatha S (Smt.)	Clerk Sel. Gr.
Thankamony Amma P (Smt.)	Clerk Gr. I
Pradeepkumar B (Sri.)	Clerk Sr. Gr.
Nikhil S Baiju (Sri.)	Clerk
Pradeep Chandran (Sri.)	Junior System Analyst
Girinja R (Smt.)	Clerk (MRT)
Bindu Sadasivan (Smt.)	Clerk Gr. I
Ajitha S (Smt.)	Clinical Records Assistant
Gireesh S (Sri.)	Clinical Records Assistant
Liji S (Smt.)	Clinical Records Assistant
Kaladevi S (Smt.)	Clinical Records Assistant
Savitha VM (Smt.)	Clinical Records Assistant
Praveen J Nair	Clinical Records Assistant
Jinson K. Paul (Sri.)	Physiotherapist (joined 29/1/18)
Jayalekshmi P (Smt.)	Coding Clerk Gr. I
Nazaruddin S (Sri.)	Driver Gr. I
Premachandran Nair S (Sri.)	Driver Sr. Gr.
Anil Kumar T.T. (Sri.)	Driver
Balachandran B.K (Sri.)	Driver
Rajeendran GC (Sri.)	Driver
Ajitha Kumari R B (Smt.)	Hospital Attender
Mariamma Varghese (Smt.)	Hospital Attender
Hari C (Sri.)	Dark Room Asst. Gr. I

### Community Oncology

Jeena Joseph N (Smt.)	Protocol Nurse
-----------------------	----------------

### Director's Office

Deepa J (Smt.)	Secretary to Director
Antony P (Sri.)	Despatcher
Louis T C (Sri.)	Hospital Assistant

### ECDC, Ernakulam

Latha A (Dr)	Cytopathologist
James Thomas M (Sri.)	Technical Officer (Cyto)
Jolly GS (Smt)	Cytotechnologist (joined 17/1/18)
Lijo TV (Sri)	Lab. Technician Sel.Gr.
Renjini Thomas (Smt.)	Lab. Technician Sel.Gr.
Ambika T B (Smt.)	Staff Nurse Gr. I
Resmi V (Smt.)	Staff Nurse Sr. Gr.
Letha B (Smt.)	Typist Gr. I
John Evidus P P (Sri.)	Hospital Assistant

### ECDC, Palakkad

Rekha SR (Dr)	Resident Medical Officer
Sanil P N (Sri.)	Cytotechnologist Sr. Gr.
Shanavas A (Sri)	Cytotechnologist (joined 28/12/17)
Nirmala K C (Smt.)	Staff Nurse Sel. Gr.
Ajila M S (Smt)	Staff Nurse Gr. I
Thomas Rajasekharan (Sri.)	Senior Helper

### Engineering Wing

Rajendran K R (Sri.)	Supervisor (Electrical) Sel.Gr.
Venugopalan Nair V R (Sri.)	Supervisor (Electrical) Gr. I
Giji P S (Sri.)	Supervisor (Electrical)
Jayakumar P (Sri.)	Supervisor (Electrical)
Rajmohan M B (Sri.)	Electrician Sel. Gr.
Suresh Kumar G (Sri.)	Electrician Gr.I
Sunil Kumar R (Sri.)	Electrician
Deepu S S (Sri.)	Electrician
Sivarajan L (Sri.)	Electronic Technician Sr.Gr.
Jayanthi J K (Smt.)	Data Entry Operator Sel.Gr.
Jayabalan Nair B (Sri.)	Plumber Gr. I
Shalin Raj R (Sri.)	Plumber
Rajan P C (Sri.)	Senior Helper
Sanjayan S (Sri.)	Plumber
Shiju T (Sri)	Plumber (joined 18/12/2017)

### Finance & Accounts

Sanjeev R (Sri.)	Controller of Finance
Sunil VS (Sri.)	Accounts Officer

Sasikumar K (Sri.)	Asst. Internal Audit Officer Gr. I
Beena N (Smt.)	Asst. Accounts Officer Sr. Gr.
Saraladevi P G (Smt.)	Asst. Accounts Officer Sr. Gr.
Vijayan S (Sri)	Office Assistant Sr. Gr.
Johnson X (Sri.)	Cashier Cum Receptionist Sr.Gr.
Sheela Kumari R (Smt.)	Cashier Sel.Gr.
Sheena Saju	Cashier
Veena C L (Smt.)	Office Assistant Sr. Gr.
Shajkumar K R (Sri.)	Office Assistant Sr. Gr.
Nandakumaran T (Sri)	Office Assistant
Prabhavathi Devi AK (Smt.)	Clerk Gr. I
Ambili S (Smt.)	Clerk Gr. I
Sreejit S (Sri)	Clerk
Usha V (Smt.)	Data Entry Operator Sr.Gr.

### Imageology

Sathyalekha S I (Smt.)	Technical Officer (Radiation)
Shailesh Kumar K N (Sri.)	Technical Officer (Radiation)
Udayakumar K R (Sri.)	Technical Officer (Radiation)
Pradeep S (Sri.)	Technical Officer (Radiation)
Joe D'cruz A (Sri.)	Technical Officer (Radiation)
Suja B R (Smt.)	Technical Officer (Radiation)
Prasad P P (Sri.)	Technical Officer
Asha S (Smt.)	Radiation Technologist Sr.Gr.
Binoy B G (Sri.)	Radiation Technologist Sr.Gr.
Jayakumar P (Sri.)	Radiation Technologist Sr.Gr.
Sreelekha L D (Smt.)	Radiation Technologist Sr.Gr.
Veena R R (Smt.)	Radiation Technologist Sr.Gr.
Saritha BS (Smt)	Radiation Technologist (joined 6/7/18)
Anees KN (Sri)	Radiation Technologist (joined 1/1/18)
Chitrallekha AR (smt)	Radiation Technologist (joined 27/12/17)
Santhosh Kumar C S (Sri.)	Hospital Assistant
Vijayakumar C (Sri.)	Hospital Attender

### Information Systems

Neelima N (Smt.)	Systems Manager
Rajesh P (Sri.)	System Analyst
Shaji J (Sri.)	System Analyst
Suseela Devi B (Smt.)	Data Entry Operator Sel.Gr.

### Library & Information Services

Vishnu V (Dr)	Librarian cum Information Officer Gr. I
---------------	--

Saji S Nair (Dr)	Assistant Librarian
Haseena K (Smt)	Library Assistant
Rahul LR (Sri)	Library Assistant
Ganga A P (Smt.)	Clerk Gr. I
Balachandran K G (Sri.)	Senior Helper
Vijayakumaran Nair R (Sri.)	Audio Visual Operator Gr. I

### Medical Oncology

Lali V S (Dr)	Resident Medical Officer Gr.I
---------------	-------------------------------

### Microbiology

Kumar TN (Sri)	Lab Technician (joined 15/1/18)
----------------	---------------------------------

### Nuclear Medicine

Sheela V (Smt.)	Technical Officer (Radiation)
Bindu B (Smt.)	Technical Officer (RIA)
Minyamma K (Smt.)	Technical Officer (RIA)
Sindhu P (Smt.)	Technical Officer (RIA)
Sheeja S R (Smt.)	Technical Officer
Sibi K S (Smt.)	Radiation Technologist Sr Gr
Sunitha S (Smt.)	Radiation Technologist Sr Gr
Salini PS (Smt)	Radiation Technologist
Jayakumar J (Sri)	Radiation Technologist (joined 3/1/2018)
Chinju G (Smt)	Radiation Technologist (joined 27/12/2017)
Deepthi Chandran (Smt)	Radiation Technologist (joined 26/12/2017)
Ananda Kumar K (Sri.)	R I A Technician Sel Gr
Usha R (Smt.)	Data Entry Operator Gr.I

### Nursing Services

Sreelekha R (Smt.)	Chief Nursing Officer
Geetha S (Smt.)	Nursing Supervisor
Lizyamma Jacob (Smt.)	Nursing Supervisor
Sally Abraham (Smt.)	Nursing Supervisor
Sheela Rodriguez (Smt.)	Nursing Supervisor
Geetha Kumari B S (Smt.)	Nursing Supervisor
Prasanna Kumari S (Smt.)	Head Nurse Sr. Gr.
Rajila Beegum (Smt.)	Head Nurse Sr. Gr.
Sunitha Kumari R (Smt.)	Head Nurse Sr. Gr.
Vijayalekshmy Ammal (Smt.)	Head Nurse Sr. Gr.
Jaya T S (Smt.)	Head Nurse Gr. I
Jikki M (Smt.)	Head Nurse Gr. I
Sheeba S V (Smt.)	Head Nurse Gr. I
Shobha S (Smt.)	Head Nurse Gr. I
Vijaya A K (Smt.)	Head Nurse Gr. I



Aniamma Joseph (Smt.)	Head Nurse Gr. I	Sheeja DB (Smt.)	Staff Nurse Sr.Gr.
Shema C (Smt.)	Head Nurse	Sheeja Samuel (Smt.)	Staff Nurse Sr.Gr.
Sindhu S (Smt.)	Head Nurse	Rajani RV (Smt.)	Staff Nurse Sr.Gr.
Saraswathy Amma P (Smt.)	Head Nurse	Simmy Panicker S (Smt.)	Staff Nurse Sr.Gr.
Bensamma Varghese (Smt.)	Head Nurse	Sindhu K (Smt.)	Staff Nurse Sr.Gr.
Sindhu G S (Smt.)	Head Nurse	Aleyamma Chacko (Smt.)	Staff Nurse Gr. I
Siva Kumari P R (Smt.)	Head Nurse	Bindhu PD (Smt.)	Staff Nurse Gr. I
Elsamma Joseph (Smt.)	Head Nurse	Geetha Kumari D (Smt.)	Staff Nurse Gr. I
Ajitha T L (Smt.)	Staff Nurse Sel.Gr.	Jyothilekshmi D (Smt.)	Staff Nurse Gr. I
Anila Kumari S (Smt.)	Staff Nurse Sel.Gr.	Lizy Varkey (Smt.)	Staff Nurse Gr. I
Indira Devi G (Smt.)	Staff Nurse Sel.Gr.	Sindhu G (Smt.)	Staff Nurse Gr. I
Indu V S (Smt.)	Staff Nurse Sel.Gr.	Ajitha S (Smt.)	Staff Nurse Gr. I
Jessy Thomas (Smt.)	Staff Nurse Sel.Gr.	Amrutha L Raj (Smt.)	Staff Nurse Gr. I
Kumari Sindhu S (Smt.)	Staff Nurse Sel.Gr.	Aneeta J George (Smt.)	Staff Nurse Gr. I
Laly Joseph (Smt.)	Staff Nurse Sel.Gr.	Annamma E J (Smt.)	Staff Nurse Gr. I
Mangalam S (Smt.)	Staff Nurse Sel.Gr.	Anupama B (Smt.)	Staff Nurse Gr. I
Ranichandra V (Smt.)	Staff Nurse Sel.Gr.	Anupama Susmitha (Smt.)	Staff Nurse Gr. I
Sajitha S (Smt.)	Staff Nurse Sel.Gr.	Archana M Nair (Smt.)	Staff Nurse Gr. I
Sherly M (Smt.)	Staff Nurse Sel.Gr.	Ariya Sreedharan B (Smt.)	Staff Nurse Gr. I
Shijkumary N G (Smt.)	Staff Nurse Sel.Gr.	Aswathy M R (Smt.)	Staff Nurse Gr. I
Suma PV (Smt.)	Staff Nurse Sel.Gr.	Beena K G (Smt.)	Staff Nurse Gr. I
Swapna C R (Smt.)	Staff Nurse Sel.Gr.	Bency Varghese (Smt.)	Staff Nurse Gr. I
Mareena Silas (Smt.)	Staff Nurse Sel.Gr.	Biji P R (Smt.)	Staff Nurse Gr. I
Sindhumol M G (Smt.)	Staff Nurse Sel.Gr.	Bincy Lukose (Smt.)	Staff Nurse Gr. I
Sophiya Lilly (Smt.)	Staff Nurse Sel.Gr.	Bindhu Rani PV (Smt.)	Staff Nurse Gr. I
Sindhu G (Smt.)	Staff Nurse Sel.Gr.	Bindu Kumari T C (Smt.)	Staff Nurse Gr. I
Chandrika P (Smt.)	Staff Nurse Sr. Gr.	Bini R (Smt.)	Staff Nurse Gr. I
Ilin William (Smt.)	Staff Nurse Sr. Gr.	Cherupushpam M (Smt.)	Staff Nurse Gr. I
Indulekha (Smt.)	Staff Nurse Sr. Gr.	Chithra V G (Smt.)	Staff Nurse Gr. I
Marykutty Mathew (Smt.)	Staff Nurse Sr. Gr.	Deepa R (Smt.)	Staff Nurse Gr. I
Rethidevi G S (Smt.)	Staff Nurse Sr. Gr.	Divya Das S (Smt.)	Staff Nurse Gr. I
Abraham Shini (Smt.)	Staff Nurse Sr.Gr.	Girija L (Smt.)	Staff Nurse Gr. I
Ajitha S (Smt.)	Staff Nurse Sr.Gr.	Gracy Sebastian (Smt.)	Staff Nurse Gr. I
Anitha Kumary PV (Smt.)	Staff Nurse Sr.Gr.	Jayasree C G (Smt.)	Staff Nurse Gr. I
Bindhu M (Smt.)	Staff Nurse Sr.Gr.	Jeeja Rajan (Smt.)	Staff Nurse Gr. I
Bini A (Smt.)	Staff Nurse Sr.Gr.	Kavitha S G (Smt.)	Staff Nurse Gr. I
Binu O (Smt.)	Staff Nurse Sr.Gr.	Kochuthresia PV (Smt.)	Staff Nurse Gr. I
Joby Paul (Smt.)	Staff Nurse Sr.Gr.	Kumari Sobha D (Smt.)	Staff Nurse Gr. I
Leemol Mathew (Smt.)	Staff Nurse Sr.Gr.	Linsa George (Smt.)	Staff Nurse Gr. I
Moly MT (Smt.)	Staff Nurse Sr.Gr.	Manju V P (Smt.)	Staff Nurse Gr. I
Rosamma Joseph (Smt.)	Staff Nurse Sr.Gr.	Maya S S (Smt.)	Staff Nurse Gr. I
Nisha Vidyadhar R (Smt.)	Staff Nurse Sr.Gr.	Nisha KThomas (Smt.)	Staff Nurse Gr. I
Sheeba P (Smt.)	Staff Nurse Sr.Gr.		(resigned 21.8.17)
Jainamma Standal (Smt.)	Staff Nurse Sr.Gr.	Preetha A (Smt.)	Staff Nurse Gr. I

Preetha S (Smt)	Staff Nurse Gr. I	Fathima S (Smt)	Staff Nurse
Preethi P R (Smt)	Staff Nurse Gr. I	Fathima Suhra M (Smt)	Staff Nurse
Priya K L (Smt)	Staff Nurse Gr. I	Georgia George (Smt)	Staff Nurse
Rajesh Kumar S (Sri)	Staff Nurse Gr. I	Gigi Mol Chacko (Smt)	Staff Nurse
Rani Thomas (Smt)	Staff Nurse Gr. I	Irshad A P (Sri)	Staff Nurse
Reena P Stanley (Smt)	Staff Nurse Gr. I	Jaichitra MV (Smt)	Staff Nurse
Remya R Chandran (Smt)	Staff Nurse Gr. I	Jamshad P (Sri)	Staff Nurse (resigned 22.9.17)
Roja S Anand (Smt)	Staff Nurse Gr. I	Jasna P K (Smt)	Staff Nurse
Saji G S (Smt)	Staff Nurse Gr. I	Jesna R (Smt)	Staff Nurse
Sandhya V Nair (Smt)	Staff Nurse Gr. I	Jijimol S J (Smt)	Staff Nurse
Sandhyamol K S (Smt)	Staff Nurse Gr. I	Julie Mariam Jacob (Smt)	Staff Nurse
Sangeetha K S (Smt)	Staff Nurse Gr. I	Karthika Raj K S (Smt)	Staff Nurse
Saritha S S (Smt)	Staff Nurse Gr. I	Ligi Das R S (Smt)	Staff Nurse
Sheeba P Varghese (Smt)	Staff Nurse Gr. I	Lija K (Smt)	Staff Nurse
Sheeba V L (Smt)	Staff Nurse Gr. I	Manjusha G S	Staff Nurse
Sherry M (Smt)	Staff Nurse Gr. I	Manoj G S (Sri)	Staff Nurse
Shiny P Thankappan (Smt)	Staff Nurse Gr. I	Maya N Nair (Smt)	Staff Nurse
Sindhu L (Smt)	Staff Nurse Gr. I	Mayadevi L (Smt)	Staff Nurse
Sindhu V (Smt)	Staff Nurse Gr. I	Neethu Jacob (Smt)	Staff Nurse (resigned 5.1.18)
Sreeja A P (Smt)	Staff Nurse Gr. I	Niza A Khalam (Smt)	Staff Nurse
Sreeja S (5233) (Smt)	Staff Nurse Gr. I	Preeja S (Smt)	Staff Nurse
Sreekala T (Smt)	Staff Nurse Gr. I	Preetha P Nair (Smt)	Staff Nurse
Sreekumaran Pillai V (Sri)	Staff Nurse Gr. I	Preetha Thomas (Smt)	Staff Nurse
Sreelatha C S (Smt)	Staff Nurse Gr. I	Rajaram S K (Sri)	Staff Nurse
Sukanya Kumari S R (Smt)	Staff Nurse Gr. I	Raji K R (Smt)	Staff Nurse
Suma V (Smt)	Staff Nurse Gr. I	Rashid E K (Sri)	Staff Nurse (terminated 22.10.17)
Suma John (Smt)	Staff Nurse Gr. I	Reena A (Smt)	Staff Nurse
Suma K (Smt)	Staff Nurse Gr. I	Rejani Mole A (Smt)	Staff Nurse
Suma P S (Smt)	Staff Nurse Gr. I	Renjini R S (Smt)	Staff Nurse
Suni Mathew (Smt)	Staff Nurse Gr. I	Renjini S R (Smt)	Staff Nurse
Sunitha L (Smt)	Staff Nurse Gr. I	Resmi V (Smt)	Staff Nurse
Swopna K (Smt)	Staff Nurse Gr. I	Rugmini M D (Smt)	Staff Nurse
Thara S S (Smt)	Staff Nurse Gr. I	Saloma P S (Smt)	Staff Nurse
Vasanthakumari R (Smt)	Staff Nurse Gr. I	Sandhya G (Smt)	Staff Nurse
Abdul Jaseer E (Sri.)	Staff Nurse	Shabeerali K (Sri)	Staff Nurse
Aradhana S (Smt)	Staff Nurse	Sharmi N (Smt)	Staff Nurse
Baijudeen B (Sri.)	Staff Nurse	Sheeja BT (Smt)	Staff Nurse
Bilna Sasi (Smt)	Staff Nurse	Sheeja H (Smt)	Staff Nurse
Bindhu K G (Smt)	Staff Nurse	Sheeja Kumari G (Smt)	Staff Nurse
Bindu B (Smt)	Staff Nurse	Shijitha KS (Smt)	Staff Nurse
Daisy A (Smt)	Staff Nurse	Shiny George (Smt)	Staff Nurse
Deepa A S (Smt)	Staff Nurse	Sindhu P 5377 (Smt)	Staff Nurse
Deepa T P (Smt)	Staff Nurse	Sindhu P Nair (Smt)	Staff Nurse
Ducakis S (Smt)	Staff Nurse	Sindhu R (Smt)	Staff Nurse

Smitha S Nair (Smt)	Staff Nurse	Joseph Jennings MM(Sri)	Staff Nurse
Soni John (Smt)	Staff Nurse	Binson Baby (Sri)	Staff Nurse
Sreeja M S (Smt)	Staff Nurse	Sajisha E S (Smt)	Staff Nurse
Sreekala N S (Smt)	Staff Nurse	Sandhya Rapheal (Smt)	Staff Nurse
Sreekala P (Smt)	Staff Nurse	Muhammed Anwar V P M (Sri)	Staff Nurse (resigned 17/8/17)
Sreelekha S (Smt)	Staff Nurse	Reshmi E R(Smt)	Staff Nurse (resigned 7/6/17)
Sumam L (Smt)	Staff Nurse	Dhanya A S(Smt)	Staff Nurse
Sumathy P (Smt)	Staff Nurse	Shiyas S R(Sri)	Staff Nurse
Sithara Balakrishnan	Staff Nurse	Kavitha G S (Smt)	Staff Nurse
Archana C S (Smt)	Staff Nurse	Mohammad Sajin N (Sri)	Staff Nurse
Sahiya VV (Smt)	Staff Nurse	Ashwathi J C (Smt)	Staff Nurse
Jafna N (Smt)	Staff Nurse	Laiby V Elizabeth (Smt)	Staff Nurse
Arathy S R (Smt)	Staff Nurse	Kavitha Mohan L (Smt)	Staff Nurse
Aparna A(Smt)	Staff Nurse	Geethu Karun (Smt.)	Staff Nurse
Manju Punnen(Smt)	Staff Nurse	Keerthi R Pillai (Smt)	Staff Nurse
Savitha V (Smt)	Staff Nurse (resigned 15/4/17)	Tania Raj K (Smt)	Staff Nurse
Reshmi V P K (Smt)	Staff Nurse	Bibin K. Mathew (Sri)	Staff Nurse
Neetha Abraham (Smt)	Staff Nurse (resigned 2/6/17)	Neelima G (Smt)	Staff Nurse
Nirmal G (Sri)	Staff Nurse (resigned 6/1/18)	Anu Priya VM (Smt)	Staff Nurse
Ajith Clement C (Sri)	Staff Nurse	Asha S (Smt)	Staff Nurse
Resmi V R (Smt)	Staff Nurse	Asha S (Smt)	Staff Nurse
Gayathri Devi K S (Smt)	Staff Nurse	Divya VJ (Smt)	Staff Nurse
Keerthy M S (Smt)	Staff Nurse	Neethu Sasi (Smt)	Staff Nurse
Lekshmi P Nair (Smt)	Staff Nurse	Susan John (Smt)	Staff Nurse
Asha A (Smt)	Staff Nurse	Sajitha S (Smt)	Staff Nurse
Harish Nair M (Sri)	Staff Nurse	Pratheeksha R (Smt)	Staff Nurse
Manju V M (Smt)	Staff Nurse	Sajana K. Badusha (Smt)	Staff Nurse
Divya Pauly (Smt)	Staff Nurse	Diana C (Smt)	Staff Nurse (resigned 11/12/17)
Bismi N S (Smt)	Staff Nurse	Riti Merin Abraham (Smt)	Staff Nurse
Likha Prasad (Smt)	Staff Nurse (resigned 31/12/17)	Ansha P.Jyothy (Smt)	Staff Nurse
Rincy Rajan(Smt)	Staff Nurse (resigned 15/2/18)	Lekshmi Mohan (Smt)	Staff Nurse
Jamsheena E M (Smt)	Staff Nurse	Anu KS (Smt)	Staff Nurse
Aswathy S (Smt)	Staff Nurse	Preetha B (Smt)	Staff Nurse
Rosamma PT (Smt)	Staff Nurse	Sankar MG (Smt)	Staff Nurse
Ajeesh K (Sri)	Staff Nurse	Jinn Joseph (Sri)	Staff Nurse (resigned 19/8/17)
Dhanya Krishnan MG (Smt)	Staff Nurse	Gireeshkumar S (Sri)	Staff Nurse
Anju Dominic (Smt)	Staff Nurse (resigned 4/1/18)	Jayakrishnan J (Sri)	Staff Nurse
Soumya T L (Smt)	Staff Nurse	Salini VP (Smt)	Staff Nurse
Abhilash Michael (Sri)	Staff Nurse	Anu K. Avirah (Smt)	Staff Nurse
Aishwarya PG (Smt)	Staff Nurse	Remya KB (Smt)	Staff Nurse
Vishnu Prasad VS (Sri)	Staff Nurse	Mini MS (Smt)	Staff Nurse
Devi Prabhu P (Smt)	Staff Nurse (resigned 12/6/17)	Jubilet Malar C (Smt)	Nursing Assistant
Arya P (Smt)	Staff Nurse	Sreekumari N (Smt)	Nursing Assistant
Biyas S B (Smt)	Staff Nurse	Kumari Sindhu T S (Smt)	Nursing Assistant

Sheela M (Smt)	Nursing Assistant	Manju I (Smt)	Nursing Assistant
Mini A K (Smt)	Nursing Assistant	Babitha Beegam R (Smt)	Nursing Assistant
Jessy Thomas (Smt)	Nursing Assistant	Sunitha Devi R R (Smt)	Nursing Assistant
Varghese Thomas (Sri)	Nursing Assistant	Ranjini R (Smt)	Nursing Assistant
Deenamma M J (Smt)	Nursing Assistant	Manju C (Smt)	Nursing Assistant
Sunila R S (Smt)	Nursing Assistant	Jayasree S (Smt)	Nursing Assistant
Smitha D (Smt)	Nursing Assistant	Sheeba L (Smt)	Nursing Assistant
Ambily T K (Smt)	Nursing Assistant	Subha Moly O (Smt)	Nursing Assistant
Kumari Prameela R G (Smt)	Nursing Assistant	Sujakumari L (Smt)	Nursing Assistant
Sheeja Rani G (Smt)	Nursing Assistant	Sreelatha S (Smt)	Nursing Assistant
Usha L (Smt)	Nursing Assistant	Manjusha V (Smt)	Nursing Assistant
Jaya Kumari R (Smt)	Nursing Assistant	Sheeja R (Smt)	Nursing Assistant
Reeja A S (Smt)	Nursing Assistant	Kala L K Nair (Smt)	Nursing Assistant
Sreekumari M (Smt)	Nursing Assistant	Sandhyakrishnan L (Smt)	Nursing Assistant
Jessy Xavier (Smt)	Nursing Assistant	Sheeja Raj (Smt)	Nursing Assistant
Subhadra T K (Smt)	Nursing Assistant	Sari A S (Smt)	Nursing Assistant
Hendit Florin S D (Smt)	Nursing Assistant	Darley Grace A E (Smt)	Nursing Assistant
Beenamma Chacko (Smt)	Nursing Assistant	Minimol S S (Smt)	Nursing Assistant
Mary Helen S (Smt)	Nursing Assistant	Justin Raj T (Sri)	Helper
Deepthi S S (Smt)	Nursing Assistant	Lathakumary K (Smt)	Helper
Sherly P K (Smt)	Nursing Assistant	Mallika V (Smt)	Helper
Rema K (Smt)	Nursing Assistant	Newton C (Sri)	Helper
Felcy Jesslet A (Smt)	Nursing Assistant	Raju T (Sri)	Helper
Ambika V (Smt)	Nursing Assistant	Saju F (Sri)	Helper
Bigimol Dominic (Smt)	Nursing Assistant	Sreekanton K (Sri)	Helper
Shaija K (Smt)	Nursing Assistant	Unnikrishnan S (Sri)	Helper
Geetha S (Smt)	Nursing Assistant	Santhakumary A (Smt.)	Cleaner
Sneha Latha S (Smt)	Nursing Assistant	Ajithakumari N K (Smt)	Cleaner
Suja Kuruvilla (Smt)	Nursing Assistant	Ambili S (C) (Smt)	Cleaner
Laly V J (Smt)	Nursing Assistant	Anila Kumary S (Smt)	Cleaner
Suja V (Smt)	Nursing Assistant	Anitha Kumary Amma M (Smt)	Cleaner
Sindhumul V A (Smt)	Nursing Assistant	Anitha V (Smt)	Cleaner
Sajini John (Smt)	Nursing Assistant	Chandramathi Amma S (Smt)	Cleaner
Jessy Philipose (Smt)	Nursing Assistant	Chandrasekharan Nair M (Sri)	Cleaner
Shyni John (Smt)	Nursing Assistant	Ebsiba D (Smt)	Cleaner
Sheeba P K (Smt)	Nursing Assistant	Geethakumari K (Smt)	Cleaner
Priya S (Smt)	Nursing Assistant	Girija S (Smt)	Cleaner
Sudha S (Smt)	Nursing Assistant	Gopakumar P (Sri)	Cleaner
Bindu A B (Smt)	Nursing Assistant	Jayanthi D (Smt)	Cleaner
Sithalekshmi V S (Smt)	Nursing Assistant	Kala Krishnan (Smt)	Cleaner
Mariamamma Joseph (Smt)	Nursing Assistant	Kaladevi B (Smt)	Cleaner
Geetha P K (Smt)	Nursing Assistant	Radha S (Lathika. S) (Smt)	Cleaner
Bindhu S (Smt)	Nursing Assistant	Lethakumari K (Smt)	Cleaner
Sali Varughese (Smt)	Nursing Assistant	Moly B (Smt)	Cleaner

Pradeep A (Sri)	Cleaner
Prasanna S (Smt)	Cleaner
Premaletha OT (Smt)	Cleaner
Pushpa T (Smt)	Cleaner
Pushpakumari P (Smt)	Cleaner
Radha R (Smt)	Cleaner
Rajalakshmy R (Smt)	Cleaner
Raheela N (Smt)	Cleaner
Rajeswari L (Smt)	Cleaner
Remadevi R (Smt)	Cleaner
Remany R (Smt)	Cleaner
Sarojam D (Smt)	Cleaner
Sarojam T (Smt)	Cleaner
Sasikala P (Smt)	Cleaner
Sailaja A (Smt)	Cleaner
Sobhana S (Smt)-2200	Cleaner
Sobhana S(Smt)-2218	Cleaner
Sreelatha P (Smt)	Cleaner
Stalin Bright N (Sri)	Cleaner
Subhashini K (Smt)	Cleaner
Sukumary L (Smt)	Cleaner
Suma L (Smt)	Cleaner
Sunilkumar G (Sri)	Cleaner
Sureshkumar K (Sri)	Cleaner
Thanky S (Smt)	Cleaner
Thulasi P (Smt)	Cleaner
Valsala P (Smt)	Cleaner
Valsala T K (Smt)	Cleaner
Vanajakumari P (Smt)	Cleaner
Vijayakumar S (Sri)	Cleaner

### **Palliative Medicine**

Prasanth CV (Dr.)	Resident Medical Officer
Manju Achamma Varghese (Dr.)	Resident Medical Officer
Dennison G (Sri)	Manufacturing Chemist
Sanal AD	Skilled Worker

### **Pathology**

Najeeya S (Smt.)	Technical Officer (Lab)
Nataraj A (Sri.)	Technical Officer (Lab)
Brinda T P (Smt.)	Technical Officer (Lab)
Saina A (Smt.)	Technical Officer (Lab)
Sulochana S (Smt.)	Technical Officer (Lab)
Veena V S (Smt.)	Cytotechnologist Sel.Gr.
Jayalal K S (Sri.)	Cytotechnologist Sel.Gr.
Mani K S (Sri.)	Cytotechnologist Sel.Gr.

Anitha S (Smt.)	Cytotechnologist Sr. Gr.
Lathamalathy L (Smt.)	Lab.Technician Sel.Gr.
Jayasree P S (Smt.)	Lab.Technician Sel.Gr.
Jiju J S (Sri.)	Lab.Technician Sel.Gr.
Rejitha VS	Data Entry Operator
Sheena Rani GS (Smt)	Typist
Krishnankutty R (Sri.)	Senior Helper

### **Pharmacy & Store**

Suresh G (Sri.)	Stores Officer
Dinesh P S (Sri.)	Pharmacist Gr. I
Shaji SS (Sri)	Pharmacist
Mini KL (Smt)	Pharmacist
Krishnapriya V (Smt)	Pharmacist
Saritha SS (Smt)	Pharmacist
Jalaja Kumari V S (Smt)	Pharmacist
Vimal Kumar Y S (Sri.)	Helper

### **Project Cell**

Vijayakumar G (Sri.)	Project Assistant Sr. Gr.
Thrivikraman Nair M G (Sri.)	Clerk Gr. I

### **Purchase**

Ramaprasad P (Sri)	Assistant Purchase Officer
Girija Kumari L S (Smt)	Office Assistant Sr Gr.
Ajitha O S (Smt.)	Office Assistant Sr. Gr.
John Joseph (Sri.)	Office Assistant Gr. I
Vijayaprasad B (Sri)	Office Assistant
Vindhya Sugathan (Smt)	Office Assistant
Sheeja S.S. (Smt)	Office Assistant

### **Radiation Physics**

Ramabhadran P (Sri.)	Technical Officer (Radiation)
Anitha C (Smt.)	Technical Officer (Radiation)
Radhakrishnan Nair T (Sri.)	Technical Officer (Radiation)
Sherif J S (Sri.)	Technical Officer (Radiation)
Sreekala R (Smt.)	Technical Officer (Radiation)
Sreekala D (Smt.)	Technical Officer (Mould)
Geethamma K (Smt.)	Technical Officer (Radiation)
Sunil Kumar S (Sri.)	Technical Officer (Radiation)
Sheeba D R (Smt.)	Technical Officer (Radiation)
Premeela Devi T (Smt.)	Technical Officer (Radiation)
Jayasree C G (Smt.)	Technical Officer (Radiation)
Ambily Govind K (Smt.)	Technical Officer
Geetha P (Smt.)	Technical Officer
Santhan H (Sri.)	Technical Officer
Viddiul Latha P A (Smt.)	Technical Officer

Maheswari J (Smt.)	Technical Officer
Rojas K. Jose	Medical Physicist (joined 21/12/17)
Midhun Sajeev (Sri)	Medical Physicist (joined 16/12/17)
Deepa MV (Smt)	Medical Physicist (joined 14/12/17)
Mini V L (Smt.)	Radiotherapy Technologist Sel.Gr.
Rajesh P R (Sri.)	Radiotherapy Technologist Sel.Gr.
Sunitha Kumari U P (Smt.)	Radiotherapy Technologist Sr.Gr.
Sindhu S S (Smt.)	Radiotherapy Technologist Sel.Gr.
Saritha V S (Smt.)	Radiotherapy Technologist Sel.Gr.
Abhilash Sudh S S (Sri.)	Radiotherapy Technologist Sr.Gr.
Asa Rani K S (Smt.)	Radiotherapy Technologist Sr.Gr.
Lal K Nair (Sri.)	Radiotherapy Technologist Sr.Gr.
Manju P M (Smt.)	Radiotherapy Technologist Sr.Gr.
Maya M (Smt.)	Radiotherapy Technologist Sr.Gr.
Seena C S (Smt.)	Radiotherapy Technologist Sr.Gr.
Sheena J (Smt.)	Radiotherapy Technologist Sr.Gr.
Shinu R S (Sri.)	Radiotherapy Technologist Sr.Gr.
Vinod S L (Sri.)	Radiotherapy Technologist Sr.Gr.
Santhosh Kumar M S (Sri.)	Electronic Technician Sr.Gr.

### Security

Satheeshkumar K S (Sri.)	Tel.Operator cum Receptionist Gr. I
Sreekumar C (Sri.)	Tel.Operator cum Receptionist
Vikraman Chettiar B. (Sri.)	Sergeant
Sukumaran Nair R (Sri)	Security Guard
Ajithkumar M. (Sri.)	Security Guard
Ajikumar S.L. (Sri)	Security Guard

### Supporting Services

Surendran Nair V (Sri)	Public Relations Officer Sr. Gr.
Mini N.(Smt.)	Dietician Sr. Gr.
Krishna Mohandas (Smt.)	Assistant Dietician (joined 7/10/17)

### Surgical Oncology

Jayasree S (Smt.)	Typist Gr. I
Viswakumar N (Sri.)	Typist Gr. I
Shirly K. Ninan (Smt)	Data Entry Operator Sr. Gr.
Suresh P S (Sri.)	Technician CSSD

### Transfusion Medicine

Rajesh R. Chandran (Dr)	Resident Medical Officer
Renukadevi V (Smt)	Technical Officer

Bindu AP (Smt)	Scientific Assistant
Asha S R (Smt)	Lab.Technician Sel.Gr.
Mini S P (Smt)	Lab.Technician Sel.Gr.

### e. Dismissals/Retrenchments: Nil

### f.Retirements

Syamalakumari S (Smt)	Cleaner (30.04.17)
Durgadevi (Smt)	Cleaner (30.04.2017)
Aleyamma Mathew (Smt)	Head Nurse (30.06.17)
Dr. P. Kusumakumary	Professor and Head, Paediatric Oncology (31.07.17)
Baby D (Smt)	Cleaner (30.09.2017)
Retnamma P (Smt)	Cleaner (30.09.2017)
Sasikumar SV (Sri)	Purchase Officer (30.10.2017)
Flower Augustine (Smt)	Nursing Superintendent (30.11.17)
Kuttappan Nair K (Sri):	Security Guard (30.11.17)
Rajan J (Sri):	Helper (30.11.2017)
Dr. Raghuram K. Nair:	Professor, Radiation Physics (28.02.2018)
Abdul Rahiman PM (Sri):	Senior Helper (28.02.2018)

### g. Obituary: Nil

## Standing Committees

### a. Scientific Committee

1	Dr. Asha Kishore Director, SCTIMST, Thiruvananthapuram	Chairman
2	Dr. Paul Sebastian Director, RCC, Thiruvananthapuram	Alternate Chairman
3	Dr. G.K. Rath Chief, BRA-IRCH, AIIMS, New Delhi	Member
4	Dr. Rajendra A. Badwe Director, Tata Memorial Centre, Mumbai	Member
5	Dr. M. Vijayakumar Director, Kidwai Memorial Institute of Oncology Bengaluru	Member
6	Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram	Member
7	Dr. T. Rajkumar Prof. and Head, Dept. of Molecular Oncology Cancer Institute (WIA), Chennai	Member

8	Dr. Nirmala A. Jambhedkar Prof. & Head, Dept. of Pathology Tata Memorial Centre, Mumbai	Member	9	Dr. S. Kannan Prof. & Head, Cancer Research Regional Cancer Centre Thiruvananthapuram.	Member
9	Dr. Meenu Hariharan Director of Medical Education (Retired) Thiruvananthapuram	Member	10	Dr. Rachel Cherian Koshy Prof. & Head, Anaesthesiology Regional Cancer Centre Thiruvananthapuram	Member
10	Dr. K. Ramadas Medical Superintendent (12.7.2017)/ Addl. Director (Admin) (from 31.08.2017) Regional Cancer Centre Thiruvananthapuram	Convener	11	Dr. Francis V. James Professor, Radiation Oncology Regional Cancer Centre Thiruvananthapuram	Convener

#### **b. Institutional Review Board**

1	Dr. Paul Sebastian Director, Regional Cancer Centre Thiruvananthapuram	Chairman
2	Dr. K. Ramadas Prof. & Head, Radiation Oncology Regional Cancer Centre Thiruvananthapuram	Member
3	Dr. K. Ramachandran Prof. & Head, Imageology Regional Cancer Centre Thiruvananthapuram	Member
4	Dr. P. Kusumakumary (Till 31.08.2017) Addl. Director, Regional Cancer Centre Thiruvananthapuram	Member
5	Dr. Shaji Thomas Addl. Professor & Head, Surgical Oncology Regional Cancer Centre Thiruvananthapuram	Member
6	Dr. K. Jayasree Prof. & Head, Pathology Regional Cancer Centre Thiruvananthapuram	Member
7	Dr. N. Geetha Prof. & Head, Medical Oncology Regional Cancer Centre Thiruvananthapuram	Member
8	Dr. Aleyamma Mathew Prof. & Head, Cancer Epidemiology & Biostatistics Regional Cancer Centre Thiruvananthapuram	Member

#### **c. Ethics Committee**

1	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O. Thiruvananthapuram	Chairman
2	Dr. M. Radhakrishna Pillai Director Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram	Member
3	Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram	Member
4	Dr. V. Retnavally Prof. of Pharmacology (Rtd.) 'Lekshmi', House No. 59 Vrindavan Housing Colony Pattom, Thiruvananthapuram	Member
5	Adv. Krishnankutty Nair 'Arathy', T.C. 17/28, JERA 21 Jegathy, Thiruvananthapuram	Member
6	Smt. Darly Francis 'Bethlehem', D7D Moolayil Lane Sasthamangalam, Thiruvananthapuram	Member
7	Dr. Sanjeev V. Thomas Professor of Neurology Sree Chitra Tirunal Institute for Science & Technology Thiruvananthapuram	Member
8	Dr. Shaji Thomas Head, Surgical Oncology, Regional Cancer Centre Thiruvananthapuram	Member

- 9 Dr. N. Geetha  
Professor & Head, Medical Oncology  
Regional Cancer Centre  
Thiruvananthapuram Member
- 10 Fr. Shoji Vechoorkarottu  
Technologist & Social Worker  
St. Aloysius Minor Seminary  
Cheshire Home Lane  
Kuravankonam, Kowdiar Post  
Thiruvananthapuram-695003 Member
- 11 Smt. Thankam Gopalakrishnan  
A51, 'Lekshmi', T.C. 9/2638(1)  
Elankom Garden, Vellayambalam  
Thiruvananthapuram-695010 Member
- 12 Dr. Rejnish Kumar R  
Addl. Professor of Radiation Oncology  
Regional Cancer Centre  
Thiruvananthapuram Convener

#### **d. Building Committee**

- 1 Chief Engineer, PWD (Buildings &  
Local Works), Govt. of Kerala Chairman
- 2 Chief Architect, PWD, Govt. of Kerala Member
- 3 Director of Medical Education,  
Govt. of Kerala Member
- 4 Principal, Govt. Medical College,  
Thiruvananthapuram Member
- 5 Director, RCC Member
- 6 Controller of Finance, RCC Member
- 7 Head, Engineering Division, RCC Convener

#### **e. Medical Record Review Committee**

1. Dr. K. Ramadas  
Medical Superintendent (till 12.7.2017) Chairman
2. Dr. Beela Sarah Mathew,  
Medical Superintendent (from 12.7.2017) Chairman
3. Dr. K. Ramadas  
Addl. Director (Admin) (from 31.8.2017) Member
4. Dr. K. Ramachandran  
Head, Imageology Member
5. Dr. Aswin Kumar  
Deputy Medical Superintendent  
(till 12.7.2017)/Quality & Safety  
Officer (from 12.7.2017) Member
6. Dr. P. Kusumakumary  
Addl. Director (Acad) (till 31.8.2017) Member

7. Dr. Priyakumari T  
Head, Paediatric Oncology  
(from 31.8.2017) Member
8. Dr. Shaji Thomas  
Head, Surgical Oncology Member
9. Dr. V. M. Pradeep  
Head, Nuclear Medicine Member
10. Dr. Geetha N  
Head, Medical Oncology Member
11. Dr. Cherian M. Koshy  
Head, Palliative Medicine Member
12. Dr. R. Rejnish Kumar  
Addl. Professor, Radiation Oncology Member
13. Mrs. Sreelekha R  
Chief Nursing Officer Member
14. Mr. Anilkumar K  
Medical Records Officer-II Member
15. Mrs. Chandrika D  
Medical Records Officer-I Convener

#### **f. Hospital Infection Control Committee**

1. Dr. K. Ramadas  
Medical Superintendent (till 12.7.2017)/  
Addl. Director (Admin) (from 31.8.2017) Chairman
2. Dr. Beela Sarah Mathew  
Medical Superintendent  
(from 12.7.2017) Member
3. Dr. Aswin Kumar  
Deputy Medical Superintendent  
(till 12.7.2017)/Quality & Safety  
Officer (from 12.7.2017) Member
4. Dr. P. Kusumakumary,  
Addl. Director (Acad) (till 30.8.2017) Member
5. Dr. Priyakumari T,  
Head, Paediatric Oncology  
(from 31.8.2017) Member
6. Dr. Rachel Cherian Koshy,  
Head, Anaesthesiology Member
7. Dr. Geetha N,  
Head, Medical Oncology Member
8. Dr. Shaji Thomas,  
Head, Surgical Oncology Member
9. Dr. Binitha R,  
Asst. Professor, Paediatric Oncology &  
Infection Control Doctor Member



10. Dr.Vijayalakshmi K, Head,Transfusion Medicine	Member	3. Dr. Beela Sarah Mathew, Medical Superintendent (from 12.7.2017)	Member
11. Dr. Swapna R. Nath, Head, Microbiology & Infection Control Officer	Member	4. Dr. Priyakumari T, Head, Paediatric Oncology (from 31.8.2017)	Member
12. Dr. Raveendran Pillai K, Head, Clinical Laboratory Services	Member	5. Dr. Cherian M. Koshy, Head, Palliative Medicine	Member
13. Dr. Arun Sankar, Asst. Professor, Radiation Oncology	Member	6. Dr. Anila KR, Associate Professor, Pathology	Member
14. Dr. Malu Rafi, Asst. Professor, Radiation Oncology	Member	7. Dr. Arun Peter Mathew, Addl. Professor, Surgical Oncology	Member
15. Dr. Rajeev KR, Asst. Professor, Radiation Oncology	Member	8. Dr. Madhu Muralee, Addl. Professor, Surgical Oncology	Member
16. Dr. Anoop TM, Asst. Professor, Medical Oncology	Member	9. Dr. Roshni S, Associate Professor, Radiation Oncology	Member
17. Dr. Arun Peter Mathew, Addl. Professor, Surgical Oncology	Member	10. Dr. Saju B, Addl. Professor, Radiation Physics/Facility Management Co-ordinator (from 12/7/2017)	Member
18. Mr. Sasikumar SV, Purchase Officer	Member	11. Dr. Sudha P, Addl. Professor, Anaesthesiology	Member
19. Mrs. Sreelekha R, Chief Nursing Officer	Member	12. Dr Sumod Mathew Koshy, Associate Professor, Imageology	Member
20. Mr. Giri Purushothaman, Head (i/c), Engineering Division	Member	13. Dr. Swapna R. Nath, Head, Microbiology	Member
21. Mr. R. Sanjeev, Controller of Finance	Member	14. Dr. Rajeev KR, Asst. Professor, Radiation Oncology	Member
22. Mrs. Geetha Kumari BS, Head Nurse, Operation Theatre	Member	15. Dr. Arun Sankar, Asst. Professor, Radiation Oncology	Member
23. Mrs. Sivakumari PR, Head Nurse (i/c), Laundry	Member	16. Dr. Malu Rafi, Asst. Professor, Radiation Oncology	Member
24. Mrs. Sunithakumari R, Head Nurse, Sr. Gr, CVAD Clinic	Member	17. Mrs. Lalitha B, Asst. Administrative Officer Sr. Gr.	Member
25. Mrs. Mini N, Dietician	Member	18. Mrs. Chandrika D, Medical Records Officer-I	Member
26. Ms. Shyma K. Babu, Biomedical Engineer	Member	19. Ms. Sreelekha R, Chief Nursing Officer	Member
27. Mrs. Bindu Rani PV, Infection Control Nurse	Member	20. Mr. Prasad PP, Technical Officer, Imageology	Member
28. Mrs. Rajani RV, NABH Co-ordinator	Member	21. Mrs. Sini LS Laboratory Technician, Sel. Gr.	Member
29. Mrs. Ariya Sreedharan, Infection Control Nurse	Member	22. Ms. Bindu Rani PV, Infection Control Nurse	Member
30. Mrs. Sheela Rodriguez, Nursing Supervisor	Convener	23. Ms. Mini N Dietician	Member
<b>g. Internal Audit Committee</b>			
1. Dr. Paul Augustine Addl. Professor, Surgical Oncology	Chairman		
2. Dr. K. Ramadas, Medical Superintendent (till 12.7.2017)/ Addl. Director (Admin) (from 31.8.2017)	Member		

24. Ms. Shyma Babu Biomedical Engineer	Member
25. Ms. Sivakumari PR Head Nurse	Member
26. Dr. Aswin Kumar, Deputy Medical Superintendent till (12.7.2017)/Quality & Safety Officer (from 12.7.2017)	Convener

#### **h. Quality Improvement Committee**

1. Dr. Paul Sebastian, Director	Chairman
2. Dr. Kusumakumary P, Addl. Director (Acad) (till 30.8.2017)	Member
3. Dr. Priyakumari T, Head, Paediatric Oncology (from 31.8.2017)	Member
4. Dr. Beela Sarah Mathew, Medical Superintendent (from 12.7.2017)	Member
5. Dr. Geetha N, Head, Medical Oncology	Member
6. Dr. Shaji Thomas, Head, Surgical Oncology	Member
7. Dr. Rachel Cherian Koshy, Head, Anaesthesiology	Member
8. Dr. Ramachandran K, Head, Imageology	Member
9. Dr. Pradeep VM, Head, Nuclear Medicine	Member
10. Dr. Ramani S. Wesley Head, Community Oncology	Member
11. Dr. Jayasree K, Head, Pathology	Member
12. Dr. Cherian M. Koshy, Head, Palliative Medicine	Member
13. Dr. Vijayalakshmi K, Head, Transfusion Medicine	Member
14. Dr. Swapna R. Nath, Head, Microbiology	Member
15. Dr. Raghuram K. Nair, Head, Radiation Physics	Member
16. Dr. Aleyamma Mathew, Head, Cancer Epidemiology & Biostatistics	Member
17. Dr. Aswin Kumar, Deputy Medical Superintendent (till 12.7.2017)/ Quality & Safety Officer (from 12.7.2017)	Member
18. Dr. Raveendran Pillai K, Head, Clinical Laboratory Services	Member
19. Mrs. Sreelekha R, Chief Nursing Officer	Member

20. Mr. Giri Purushothaman, Head (i/c), Engineering Division	Member
21. Mr. Surendran Nair V, Public Relations Officer Sr. Gr.	Member
22. Mrs. Lalitha B Asst. Administrative Officer	Member
23. Mrs. Chandrika D Medical Records Officer-I	Member
24. Mr. Sreekumar B, Asst. Administrative Officer (CS)	Member
25. Mrs. Lizyamma Jacob, Nursing Supervisor	Member
26. Mrs. Mini N, Dietician	Member
27. Dr. K. Ramadas, Medical Superintendent (till 12.7.2017)/ Addl. Director (Admin) (from 31.8.2017)	Convener

#### **i. Drug Committee**

1. Dr. K. Ramadas, Medical Superintendent (till 12.7.2017)/ Addl. Director (Admin) (from 31.8.2017)	Chairman
2. Dr. Beela Sarah Mathew, Medical Superintendent (from 12.7.2017)	Member
3. Dr. Kusumakumary P, Addl. Director (Acad) (till 30.8.2017)	Member
4. Dr. Priyakumari T, Head, Paediatric Oncology (from 31.8.2017)	Member
5. Dr. Francis V. James, Professor, Radiation Oncology	Member
6. Dr. Aswin Kumar, Deputy Medical Superintendent (till 12.7.2017)/Quality & Safety Officer (from 12.7.2017)	Member
7. Dr. Sivanandan CD, Addl. Professor, Radiation Oncology	Member
8. Dr. R. Rejnishkumar, Addl. Professor, Radiation Oncology	Member
9. Dr. Shaji Thomas, Head, Surgical Oncology	Member
10. Dr. Rachel Cherian Koshy, Head, Anaesthesiology	Member
11. Dr. Geetha N, Head, Medical Oncology	Member

12. Dr. Cherian M. Koshy,  
Head, Palliative Medicine Member
13. Mr. Suresh G, Stores Officer Member
14. Mr. Sanjeev R, Controller of Finance Member
15. Mr. S.V. Sasikumar, Purchase Officer Convener

#### **j. Hospital Transfusion Committee**

1. Dr. Beela Sarah Mathew,  
Medical Superintendent (from 12.7.2017) Chairman
2. Dr. Kusumakumary P,  
Addl. Director (Acad) (till 30.8.2017) Member
3. Dr. Priyakumari T,  
Head, Paediatric Oncology  
(from 31.8.2017) Member
4. Dr.K. Ramadas,  
Medical Superintendent (till 12.7.2017)/  
Addl. Director (Admin) (from 31.8.2017) Member
5. Dr. Shaji Thomas,  
Head, Surgical Oncology Member
6. Dr. Rachel Cherian Koshy,  
Head, Anaesthesiology Member
7. Dr. Geetha N,  
Head, Medical Oncology Member
8. Dr. Cherian M. Koshy,  
Head, Palliative Medicine Member
9. Dr Rajesh Chandran,  
RMO, Transfusion Medicine Member
10. Mrs. Sreelekha R,  
Chief Nursing Officer Member
11. Ms. Bindu AP,  
Scientific Assistant, Transfusion Medicine Member
12. Dr. K. Vijayalakshmi  
Head, Transfusion Medicine Convener

#### **k. Hospital Safety Committee**

1. Dr. Paul Sebastian, Director Chairman
2. Dr. Beela Sarah Mathew,  
Medical Superintendent  
(from 12.7.2017) Member
3. Dr. Geetha N, Head,  
Division of Medical Oncology Member
4. Dr. Aswin Kumar,  
Deputy Medical Superintendent (till 12.7.2017)/  
Quality & Safety Officer (from 12.7.2017) Member
5. Dr. Raghuram K. Nair,  
Head, Radiation Physics Member

6. Dr. Prasanth CV,  
Resident Medical Officer,  
Palliative Medicine Member
7. Dr. Saju B,  
Addl. Professor, Radiation Physics Member
8. Mr. Giri Purushothaman,  
Head (i/c), Engineering Division Member
9. Mrs. Sheela Rodriguez,  
Infection Control Convener Member
10. Mrs. Sreelekha R,  
Chief Nursing Officer Member
11. Mrs. Flower Augustine,  
Nursing Superintendent Member
12. Mrs. Mini N, Dietician Member
13. Mr.V. B. Remesh Kumar,  
Security Officer Member
14. Dr.K. Ramadas,  
Medical Superintendent (till 12.7.2017)/  
Addl. Director (Admin) (from 31.8.2017) Convener

#### **l. Mortality/Morbidity Review Committee [M & M R]**

1. Dr.K.Ramadas,  
Medical Superintendent (till 12.7.2017)/  
Addl. Director (Admin) (from 31.8.2017) Chairman
2. Dr. Geetha N,  
Head, Medical Oncology Member
3. Dr. Beela Sarah Mathew,  
Medical Superintendent (from 12.7.2017) Member
4. Dr. Priyakumari T,  
Head, Paediatric Oncology  
(from 31.8.2017) Member
5. Dr. Rema P,  
Addl. Professor, Surgical Oncology Member
6. Dr. Bipin T.Varghese,  
Addl. Professor, Surgical Oncology Member
7. Dr. Asha Arjunan,  
Associate Professor, Radiation Oncology Member
8. Dr. Roshni S,  
Asst. Professor, Radiation Oncology Member
9. Dr. Lali VS,  
RMO, Medical Oncology Member
10. Dr. Aswin Kumar,  
Deputy Medical Superintendent  
(till 12.7.2017)/Quality &  
Safety Officer (from 12.7.2017) Convener

### **m. Code Blue Committee**

---

1. Dr.K. Ramadas,  
Medical Superintendent (till 12.7.2017)/  
Addl. Director (Admin) (from 31.8.2017) Chairman
2. Dr.Viji S. Pillai,  
Associate Professor; Anaesthesiology Member
3. Dr. Bhagyalakshmi,  
Associate Professor; Anaesthesiology Member
4. Mrs. Sreelekha R,  
Chief Nursing Officer Member
5. Mrs.Vijaya AK, Head Nurse Member
6. Mr. Manoj GS, Staff Nurse Member
7. Dr. Aswin Kumar  
Deputy Medical Superintendent (till 12.7.2017)/  
Quality & Safety Officer (from 12.7.2017) Convener

### **n. Library Committee**

---

- 1 Dr. Paul Sebastian, Director Chairman
- 2 Dr. P. Kusumakumary,  
Addl. Director (Academic) (till 31.7.17) Member
- 3 Dr. K. Jayasree,  
Addl. Director (Academic) (from 31.8.17) Member
- 4 Dr. K. Ramadas,  
Addl. Director (Admn.) (from 31.8.2017) Member
- 5 Dr. Beela Sarah Mathew  
Medical Superintendent (from 12.7.2017) Member
- 6 Sri. R. Sanjeev, Controller of Finance Member
- 7 Dr. K. Ramachandran, Head, Imageology Member
- 8 Dr.V.Vishnu,  
Librarian cum Information Officer Convener

### **b. Assistant Public Information Officers**

Smt. Jumailathu Beevi KM, Office Assistant Sel. Gr.  
Sri. S.V. Sasikumar, Purchase Officer  
Smt. N. Beena, Assistant Accounts Officer Sr. Gr.  
Sri.V. Surendran Nair, Public Relations Officer Sr. Gr.

### **c. Appellate Authority**

Dr. K. Ramadas, Addl. Director (Admin) (From 31.8.17)

### **d. Number of Applications**

Received : 97

Disposed : 93

Pending : 04

**e. Penalties levied for non-supply of information:** Nil

**f. Cases pending with State Information Commission:** Nil

## **Internal Control Mechanism**

- a. Staff used exclusively for internal audit : 1
- b. Audit committee meetings : Nil
- c. Monitoring committees set up: Administrative committee consisting of all HODs, Medical Superintendent and Additional Directors with the Director as the Head, meets periodically to evaluate the functioning of the Centre.

## **Other matters**

- i. Grievance redressal mechanism: Committee for redressal of complaints of sexual harassment against female employees.
- ii. Official Language Act : Implemented
- iii. Computerisation : Completed

## **Right To Information Act**

### **a. Public Information Officers**

Sri.V.S. Sunil, Accounts Officer  
Smt. Lalitha B, Asst. Administrative Officer Sr. Gr.  
Smt. Chandrika D., Medical Records Officer-I  
Smt. N. Neelima, Systems Manager

ACCOUNTS  
2017-2018

**REGIONAL CANCER CENTRE SOCIETY,TRIVANDRUM (Reg. No. 567/81)  
BALANCE SHEET AS ON 31st MARCH 2018**

Schedule	Liabilities	Current Year (Rs.)	Previous Year (Rs.)	Schedule	Assets	Current Year (Rs.)	Previous Year (Rs.)
I	CAPITAL FUND	2,483,898,047.97	2,446,263,809.97	VI	FIXED ASSETS	2,672,177,304.16	2,491,938,649.56
II	SPECIFIC FUNDS	343,836,852.23	309,770,884.95	VII	INVESTMENTS	775,471,771.00	767,790,813.00
	GRANT FOR STATE CANCER INSTITUTE	-	313,100,000.00		CURRENT ASSETS AND LOANS AND ADVANCES		
	GRANT IN AID - GOI FOR STATE CANCER INSTITUTE	45,865,572.00	-	VIII	CLOSING STOCK	146,609,963.17	116,765,222.00
	GRANT FROM GOVT OF KERALA	67,642,204.20	463,357,059.20	IX	ADVANCES-OTHERS & OTHER CIA	68,710,094.79	59,883,088.51
	GRANT IN AID- GOK FOR KARUNAGAPALLY PROJECT	2,000,000.00	-	X	INVESTIGATION FEES RECEIVABLE	1,604,123,042.38	1,271,587,124.48
III	CCL FUND	209,460,053.00	209,378,200.00	XI	BALANCE WITH BANK	860,810,669.12	1,794,874,314.72
	RADIO THERAPY RESEARCH FUND	725,621.00	725,621.00	XII	CASH IN HAND	914,062.23	1,073,994.23
	CURRENT LIABILITIES AND PROVISIONS			XIII	INCOME & EXPENDITURE ACCOUNT	531,783,545.65	566,347,776.14
IV	CURRENT LIABILITIES - OTHERS	1,813,505,767.27	1,846,876,895.27				
V	PROVISION FOR GRATUITY	24,119,723.00	17,270,969.00				
	CREDITORS FOR GOODS SUPPLIED	142,202,006.25	120,237,806.35				
VI	PROVISION FOR DEPRECIATION	1,527,344,605.58	1,343,279,736.90				
	Total	6,660,600,452.50	7,070,260,982.64		Total	6,660,600,452.50	7,070,260,982.64

Trivandrum  
01.10.2019

Dr.Rekha A Nair  
(Director)

Gopakumar K R  
(Controller of Finance)

For Rathnam & Murthy  
Chartered Accountants  
FRN:003170S

CA. M.Satheesh Kumar, FCA, DISA (ICAI)  
Partner  
Membership Number:207847

**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg.No. 567/81)**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2018**

Schedule	Expenditure	Current Year (Rs.)	Previous Year (Rs.)	Schedule	Income	Current Year (Rs.)	Previous Year (Rs.)
	Opening Stock	116,765,222.00	164,572,670.11		Grant-in-aid; Govt of Kerala	577,166,000.00	509,962,000.00
A	Purchases, medicines, chemicals etc	769,793,502.00	616,485,346.00		Less: Pension Fund paid	-55,000,000.00	-120,000,000.00
B	Salaries and Allowances	826,664,329.00	770,127,647.00			522,166,000.00	389,962,000.00
C	Uniform and Liveries	503,817.00	658,894.00		Investigation fees	677,646,240.24	653,965,635.63
	Rent, Rates & Taxes	2,239,876.00	2,807,183.43		Medicine Receipts	694,694,486.10	609,635,109.42
D	Postage, Telephone & Telegram	828,323.00	764,105.00	L	Interest Income	27,584,415.67	24,790,388.09
E	Travelling Expenses	503,807.00	318,948.00	M	Training Fees	25,546,734.00	25,836,406.00
F	Printing and Stationery	2,372,265.00	2,335,247.00	N	Miscellaneous Income	6,555,064.00	5,479,959.33
	Advertisement Charges	2,319,670.00	2,773,249.00		Closing Stock	146,609,963.17	116,765,222.00
G	Electricity and water Charges	45,598,711.49	39,417,141.00		Excess of Expenditure over Income		31,301,604.98
H	Repairs and Maintenance	27,374,358.00	28,582,661.03				
I	Service contract Charges	52,181,590.00	26,902,074.62				
	Audit Fees	632,000.00	175,820.00				
J	Computer Expenses	1,340,893.00	743,931.00				
	Books & Periodicals	16,060.00	12,355.00				
	Expenses to NTR	5,444,417.00	4,640,997.00				
K	Miscellaneous Expenses	36,457,647.95	15,452,283.00				
	Depreciation	184,064,868.68	180,965,773.26				
	Excess of Income over Expenditure	25,701,546.06					
	<b>Total</b>	<b>2,100,802,903.18</b>	<b>1,857,736,325.45</b>		<b>Total</b>	<b>2,100,802,903.18</b>	<b>1,857,736,325.45</b>

Trivandrum  
01.10.2019

Dr. Rekha A Nair  
(Director)

Gopakumar K R  
(Controller of Finance)

For Rathnam & Murthy  
Chartered Accountants  
FRNI/0031705

CA. M. Satheesh Kumar, FCA, DISA (ICAI)  
Partner  
Membership Number: 207847

**REGIONAL CANCER CENTRE SOCIETY,TRIVANDRUM (Reg. No. 567/81)  
SCHEDULE -VI**

ITEM	Schedule No	Gross Block			Depreciation			Net Block			
		Original Cost 01-04-2017	Additions	Deductions	Original Cost on 31.3.2018	Up to 31.3.2017	Rate	Additions	Total upto 31.3.2018	As on 31.3.2018	As on 31.3.2017
AIR CONDITIONER	1	74,869,184.35	4,254,882.00		79,124,066.35	37,982,365.18	0.15	6,171,255.18	44,153,620.36	34,970,445.99	36,886,819.17
BUILDING	2	560,979,607.57	21,579,272.00		582,558,879.57	180,731,209.67	0.10	40,182,766.99	220,913,976.66	361,644,902.91	380,248,397.90
CIVIL WORKS	3	309,140.63			309,140.63	183,614.11	0.10	12,552.65	196,166.76	112,973.87	125,526.52
COBALT UNIT	4	18,123,455.30			18,123,455.30	16,786,611.43	0.15	200,526.58	16,987,138.01	1,136,317.29	1,336,843.87
HOSPITAL EQUIPMENTS & OTHER ASSETS (PROJECTS)	5	71,953,412.00			71,953,412.00	45,819,113.61	0.15	39,201,447.6	49,739,258.37	22,214,153.63	26,134,298.39
ELECTRICAL INSTALLATION	6	108,867,087.90	2,491,770.00		111,358,857.90	64,272,039.72	0.15	7,063,022.72	71,335,062.44	40,023,795.46	44,595,048.18
HOSPITAL & LAB EQUIPMENTS	7	1,329,664,396.97	106,114,391.00		1,435,778,787.97	773,465,590.61	0.15	99,719,100.74	873,184,691.35	562,594,096.62	556,198,806.36
ASSETS (DONATIONS)	8	370,112.00			370,112.00	351,368.71	0.15	2,811.49	354,180.20	15,931.80	18,743.29
FIRE DETECTION	9	15,210,379.00			15,210,379.00	5,843,660.57	0.15	1,405,007.76	7,248,668.33	7,961,710.67	9,366,718.43
GAS & CYLINDER	10	10,384,532.05			10,384,532.05	8,363,257.79	0.15	303,191.14	8,666,448.93	1,718,083.12	2,021,274.26
COMPUTER HARDWARE & SOFTWARE	11	55,837,112.80	15,518,558.00		71,355,670.80	52,727,494.30	0.60	11,176,905.91	63,904,400.21	7,451,270.59	31,096,185.50
HIGH ENERGY LINEAR ACCELERATOR	12	52,987,763.00			52,987,763.00	46,581,251.29	0.15	960,976.76	47,542,228.05	5,445,534.95	6,406,511.71
FURNITURE & FITTINGS	13	35,352,410.48	2,335,950.00	2,452,607.00	35,235,753.48	18,601,775.20	0.10	1,908,658.53	20,510,433.73	14,725,319.75	16,750,635.28
LAND	14	1,000.00	-	-	1,000.00	-	-	-	-	1,000.00	1,000.00
LIBRARY BOOKS & JOURNALS	15	88,363,287.65	8,286,868.00	20,287.00	96,629,868.65	51,978,757.79	0.15	6,700,709.68	58,679,467.47	37,950,401.18	36,384,529.86
LIFT & ELEVATOR	16	27,105,560.00			27,105,560.00	13,460,804.14	0.15	2,046,713.38	15,507,517.52	11,598,042.48	13,644,755.86
LOW ENERGY LINEAR ACCELERATOR	17	3,611,489.40			3,611,489.40	2,900,479.59	0.15	106,651.47	3,007,131.06	604,358.34	711,009.81
CAPITAL WORK IN PROGRESS	18	332,539.00	22,238,298.60		22,570,837.60	-	-	-	-	22,570,837.60	332,539.00
OFFICE EQUIPMENTS	19	3,799,917.43	120,950.00		3,920,867.43	2,728,906.30	0.15	178,794.17	2,907,700.47	1,013,166.96	1,071,011.13
SOLAR POWER GENERATION SYSTEM-M/S ANERT	20	6,490,000.00		28,119.100	6,208,809.00	973,500.00	0.15	827,475.00	1,800,975.00	4,407,834.00	5,516,500.00
TELEMEDICINE PROJECTS	21	7,718,623.00			7,718,623.00	6,900,027.52	0.15	1,228,743.32	7,022,901.84	695,721.16	818,595.48
TELEPHONE EQUIPMENTS	22	6,290,334.00	51,800.00		6,342,134.00	4,722,254.85	0.15	242,981.87	4,965,236.72	1,376,897.28	1,568,079.15
VEHICLES	23	6,753,931.60			6,753,931.60	2,941,637.65	0.15	571,844.10	3,513,481.75	3,240,449.85	3,812,293.95
WATER SUPPLY & DRAINAGE	24	6,563,373.43			6,563,373.43	4,964,016.87	0.15	239,903.48	5,203,920.35	1,359,453.08	1,599,356.56
<b>TOTAL</b>		<b>2,491,938,649.56</b>	<b>182,992,739.60</b>	<b>2,754,085.00</b>	<b>2,672,177,304.16</b>	<b>1,343,279,736.90</b>		<b>184,064,868.68</b>	<b>1,527,344,605.58</b>	<b>1,144,832,698.58</b>	<b>1,148,658,912.66</b>

Trivandrum  
01.10.2019

Dr.Rekha A Nair  
(Director)

For Rathnam & Murthy  
Chartered Accountants  
FRN:0031705

CA. M.Satheesh Kumar, FCA, DISA (ICAI)  
Partner  
Membership Number:207847



**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM**  
**(Reg. no. 567/81)**  
**CANCER CARE FOR LIFE SCHEME**  
**INCOME AND EXPENDITURE ACCOUNT FOR**  
**THE YEAR ENDED 31st MARCH 2018**

SCHEDULE	PARTICULARS	CURRENT YEAR (Rs.)	PREVIOUS YEAR (Rs.)	SCHEDULE	PARTICULARS	CURRENT YEAR (Rs.)	PREVIOUS YEAR (Rs.)
	Reimbursement to Patients	13,355,795.57	14,132,313.00		Interest on FD & Investments	22,218,480.00	13,059,739.00
	Excess of Income over Expenditure	8,862,684.43	-		Excess of Expenditure over Income	-	1,072,574.00
	<b>Total</b>	<b>22,218,480.00</b>	<b>14,132,313.00</b>		<b>Total</b>	<b>22,218,480.00</b>	<b>14,132,313.00</b>

Trivandrum  
01.10.2019

Dr.Rekha A Nair  
(Director)

Gopakumar K R  
(Controller of Finance)

For Rathnam & Murthy  
Chartered Accountants  
FRN:003170S

CA. M.Satheesh Kumar, FCA, DISA (ICAI)  
Partner  
Membership Number:207847

# INDEPENDENT AUDITOR'S REPORT

To,  
The Members of Regional Cancer Centre Society,  
Thiruvananthapuram

We have audited the accompanying financial statements of **REGIONAL CANCER CENTRE SOCIETY**, Thiruvananthapuram which comprises the Balance sheet as at March 31, 2018 and the Statement of Income and Expenditure Account for the year then ended, and a summary of significant accounting policies and other explanatory information.

## **Management's responsibility for the financial statements**

The Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position, financial performance in accordance with the accounting principles generally accepted in India to the extent applicable to the society. This responsibility also includes design, implementation and maintenance of internal control relevant to the preparation and fair presentation of the financial statements and is free from material misstatement, whether due to fraud or error.

## **Auditors' responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the standards on auditing issued by the Institute of Chartered Accountants of India to the extent applicable to the society. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Society's preparation and fair presentation of the financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by the Management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the financial statements.

## **Qualified Opinion**

In our opinion, and to the best of our information and according to the explanations given to us, except for the possible **effects of the matter described in the Basis of Qualified Opinion Paragraph (Details in Annexure I)** below, the financial statements together with the accounting policies and explanatory information given in the notes thereon give the information required for the society, in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India as applicable to the society:

- (i) In case of Balance Sheet, of the state of affairs of the Society as at 31st March 2018, and
- (ii) In case of Income and Expenditure Account of the excess of income over expenditure for the year ended on that date.

## **Basis for Qualified Opinion**

As explained in Annexure I, the society has not obtained confirmations as at the year end on 31.03.2018 for the investigation fee receivable and creditors for goods supplied balances as well as the respective aging statements, non-reconciliation of credit patients control account, pending payments (Patients) and Advance from Patients account, irregularities observed in updating the reports generated in Hospital Information System to the Office Financial Accounting Software (OFA), non-maintenance of fixed assets Register and inconsistencies with accounting standards with regard to accounting of fixed assets.

## **Emphasis of Matter**

We draw attention to Note 1 in Notes on Accounts regarding accounting of Government Grant for acquisition of fixed assets and Note 5 on unutilized amount of grants from the State and Central Government by the society and our opinion is not qualified in respect of these matters.

Place: Trivandrum  
Date: 01.10.2019

For Rathnam & Murthy,  
Chartered Accountants

CA. M.Satheesh Kumar, FCA, DISA (ICAI)  
Partner  
Membership Number: 207847  
Firm Registration No.: 0031705

# SCHEDULE – XV

## SIGNIFICANT ACCOUNTING POLICIES

### **1. ACCOUNTING ASSUMPTIONS**

The accounts have been prepared under the historic cost convention on the basis of a going concern concept, with revenues recognised and expenses accounted on their accrual (except income from investments, treatment expenditure in respect of patients, which is accounted only at the settlement of bills and leave surrender salary which are accounted as and when income/expense is actually received or paid, hostel rent in respect of PG doctors) including provisions / adjustments for committed obligations and amounts determined as payable or receivable during the year.

The Financial Statements are prepared in accordance with Generally Accepted Accounting Principles (GAAP) in India and the Accounting Standards issued by the Institute of Chartered Accountants of India and deviations if any from such standards have been explained in the notes on accounts.

### **2. METHOD OF ACCOUNTING**

The method of accounting followed by the society is “mercantile system” subject to the clause no.1 above.

### **3. INVENTORIES**

Inventories are valued at cost or net realizable value whichever is less. Cost includes freight and other related incidental expenses and is computed in weighted average method.

### **4. FIXED ASSETS**

The “Gross Block” of fixed assets represents cost of acquisition and all other attributable cost of bringing the asset to the working condition for its intended use. Accumulated depreciation is shown separately as Provision for Depreciation.

### **5. DEPRECIATION**

Depreciation is provided on Fixed Assets under written down value method at the rates as per the Fixed Assets Schedule attached. In the case of new assets purchased during the year full depreciation is provided at the rates mentioned above while no depreciation is charged during the year in the case of assets disposed / demolished / discarded or otherwise retired during the year.

### **6. GRANT-IN-AID**

Grant-in-Aid received during the year from the Government, both Central and State, under the plan funds to the extent of the value of additions to fixed assets in the current year is transferred and included under Capital Fund Account and the balance amount is retained under Grant in Aid from the respective Government Account. Grant in Aid received as non-plan funds from the State Government is transferred to Income and Expenditure Account to the extent utilized in the current year for the purpose for which it is received and the amount to the extent not utilized in the current year for the stated purpose, but set apart to be used for the purpose in the subsequent year(s), is retained under Grant-in-Aid from the State Government Account. Capital Grant received from NRHM during the previous years has been included under capital fund account as it represents the fixed assets acquired.

### **7. CAPITAL FUND**

Capital Fund Account balance includes the fund balance at the beginning of the year, Capital Grants to the extent used for acquisition / construction of fixed assets, the value of assets received from the projects at free of cost and the value of assets received as donations.

### **8. INCOME-TAX**

No provision for current or deferred tax is provided as the society is a registered charitable society under Section 12AA of the Income-Tax Act, 1961.

### **9. ASSETS RECEIVED FROM PROJECT CELL**

The assets transferred to the society from the projects cell after having fulfilled its intended use in the projects are credited to capital fund account as the Society received these assets as free of cost.

### **10. RETIREMENT BENEFITS**

The liability on account of post-employment benefits in the form of gratuity, as and when it arises, is met from Regional Cancer Centre Employees Group Gratuity Fund set up under a Group Gratuity Scheme administered by the Life Insurance Corporation of India. The premiums paid to the scheme is treated as revenue expenditure and disclosed in the Income and Expenditure Account.

Trivandrum  
01.10.2019

Dr.Rekha A Nair  
(Director)

Gopakumar K R  
(Controller of Finance)

For Rathnam& Murthy  
Chartered Accountants  
FRN:0031705

CA. M.Satheesh Kumar, FCA, DISA (ICAI)  
Partner  
Membership Number:207847

## SCHEDULE – XVI NOTES ON ACCOUNTS

1. Had the organization followed the Accounting Standards (AS 12) regarding Government Grant issued by the ICAI and reduced the grant utilized for acquisition of fixed assets from the gross value of such assets, the depreciation debited to Income & Expenditure Account for the year would have been reduced by the quantum of depreciation relating to the value of specific assets acquired out of Grant-in-Aid and there would have been consequent reduction in the deficit for the year. As the organization, has been following the accounting practice, as mentioned under Clause No.6 of the Significant Accounting Policies, for previous years also, the impact of the above deviation from the standard in the current year's deficit could not be quantified precisely.
2. Investigation fees include income from registration fees, ward charges, nuclear medicine, radiotherapy, surgery and lab.
3. There is surplus or profit during the year, according to the society, which is not chargeable to income-tax, as the society has obtained registration under Section 12AA of the Income Tax Act 1961.
4. Contingent liability towards property tax and interest thereon is amounting to Rs 10167369 Non-refund of Grant-in-aid is contingent upon the fulfillment of all the conditions attached to such assistance.
5. The balance in Grant in Aid from Government of Kerala account, includes grant received under Plan Fund of Rs 67642204 and similarly Grant-in-Aid from Government of India of Rs. 45865572 represent the unutilized amount of Grant received under Plan from the Central Government.
6. Figures for the previous year have been regrouped and recast wherever necessary to suit the current year lay-out.

Trivandrum  
01.10.2019

Dr.Rekha A Nair  
(Director)

K.R.Gopakumar  
(Controller of Finance)

As per my report of even date attached

For Rathnam & Murthy  
Chartered Accountants  
FRN:003170S

CA. M.Satheesh Kumar, FCA, DISA (ICAI)  
Partner  
Membership Number:207847

## TO WHOMSOEVER IT MAY CONCERN

1. During the year 2017-18 The Regional Cancer Centre Society, Thiruvananthapuram has received Rs. 2043.80 Lakhs under the head of account 2210-05-105-52-36 (NP) Grant in Aid-Non Salary and Rs. 3727.86 Lakhs under the head of account 2210-05-105-52-31 (NP) Grant in Aid-Salary from the Govt. Of Kerala. The details of such receipts are as follows:

Installment	G.O.Numbers	Amount (Rs. in Lakhs)
A	Head of Account-2210-05-105-52-36 (NP)- Grant in Aid-Non Salary	
1	GO(Rt)No.1286/2017/H&FWD dated 05/05/2017	340.63
2	GO(Rt)No.1936/2017/H&FWD dated 12/07/2017	340.63
3	GO(Rt)No.2376/2017/H&FWD dated 29/08/2017	340.63
4	GO(Rt)No.3329/2017/H&FWD dated 23/11/2017	340.63
5	GO(Rt)No.450/2018/H&FWD dated 07/02/2018	340.63
6	GO(Rt)No.754/2018/H&FWD dated 06/03/2018	340.65
	<b>Total</b>	<b>2043.80</b>
B	Head of Accounts-2210-05-105-31 (NP)-Grant in Aid -Salary	
1	GO(Rt)No.1286/2017/H&FWD dated 05/05/2017	621.31
2	GO(Rt)No.1936/2017/H&FWD dated 12/07/2017	621.31
3	GO(Rt)No.2376/2017/H&FWD dated 29/08/2017	621.31
4	GO(Rt)No.3329/2017/H&FWD dated 23/11/2017	621.31
5	GO(Rt)No.450/2018/H&FWD dated 07/02/2018	621.31
6	GO(Rt)No.754/2018/H&FWD dated 06/03/2018	621.31
	<b>Total</b>	<b>3727.86</b>
<b>Grand Total (A+B)</b>		<b>5771.66</b>

2. The amount was used during the year 2017-18 for the following purposes:

Sl. No.	Purpose	Amount (Rs. in lakhs)
1	Pension Fund paid	550.00
2	Operational expenditure including salary	5221.66
	<b>Total</b>	<b>5771.66</b>

3. That the utilization mentioned above is true and correct as disclosed by the Books of accounts of the Society.

Trivandrum  
01.10.2019

For Rathnam & Murthy  
Chartered Accountants  
FRN: 0031705

CA. M.Satheesh Kumar; FCA, DISA (ICAI)  
Partner  
Membership Number:207847

**T.AJITH KUMAR B.Com, FCA**  
**CHARTERED ACCOUNTANT**

Chaitaniya,  
T.C. 54/2214-2  
Sreedharan Pillai Road  
Pappanamcode P.O.  
Thiruvananthapuram 695 018  
Telephone: 0471-2495939  
Mobile: 9349990489  
E-mail: ajithkumarca@yahoo.com

## **AUDITOR'S REPORT**

I have audited the accounts of the Foreign Contribution for Research Projects of the Regional Cancer Centre Society, registered as per T.C Literary Scientific and Charitable Societies Regulation Act XII of 1955 (Reg.No.567/81) with registered office at Medical College PO, Thiruvananthapuram-695011, Kerala State for the year ended 31st March, 2018 and relevant books and vouchers and certify that according to the audited accounts.

1. The brought forward foreign contribution at the beginning of the financial year 2017-2018 was Rs.5,57,92,801.04
2. Foreign Contribution worth Rs. 78,40,550.37 was received by the Association during the year ended 31st March 2018.
3. The balance in foreign contribution account together with interest earned thereon at the end of the financial year 2017-2018 was Rs. 5,74,21,413.87
4. Certified that the Association has maintained the accounts of foreign contribution and records relating thereto in the manner specified in section 19 of the foreign contribution (Regulation) Act, 2010 (42 of 2010) read with rule 16 of the foreign contribution (Regulation) Rules, 2011.
5. The information furnished above and in the Balance Sheet and statement of receipts and payments are correct as checked by me.

Trivandrum  
9th November 2018

**T.AJITH KUMAR B.Com, FCA**  
**CHARTERED ACCOUNTANT**  
MEM. NO. 209348

**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM**  
**(Reg. No.567/81)**  
**Foreign contribution for Research Projects**  
**Balance Sheet as at 31st March 2018**

LIABILITIES	Amt (Rs Ps.)	Amt (Rs. Ps.)	ASSETS	Amt (Rs. Ps.)	Amt (Rs. Ps.)
CAPITAL FUND		-	FIXED ASSETS		-
RESEARCH FUND (Sch.1)		35,923,075.20			
			INVESTMENTS		55,187,772.00
FC PROJECT FUND (Sch.2)		21,498,338.67	(Schedule 3 attached)		
			CURRENT ASSETS &		
CURRENT LIABILITIES			LOANS AND ADVANCES		
Salary Recovery	16,650.00		Cash in Hand	68,951.00	
			Cash at Bank	398,593.87	
Payable to Res: Project a/c	709,100.00	725,750.00	Interest Accrued but not due	2,148,726.00	
			Imprest	7,000.00	
			TDS	316,121.00	
			Rent Deposits	20,000.00	2,959,391.87
<b>TOTAL</b>		<b>58,147,163.87</b>	<b>TOTAL</b>		<b>58,147,163.87</b>

Vide my report of even date attached.

Trivandrum  
9th November 2018

**Finance Manager**  
(Projects)

**DIRECTOR**

**T.AJITH KUMAR B.Com, FCA**  
CHARTERED ACCOUNTANT  
MEM. NO: 209348

**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM**  
**(Reg. No.567/81)**  
**Foreign contribution for Research Projects**  
**Receipts and Payments Account for the**  
**year ended on 31st March 2018**

RECEIPTS	Amt (Rs)	PAYMENTS	Amt (Rs)
To Opening Balance:-		By Project Expenses:-	
Cash in Hand	53,843.00	“ Revenue Expenses paid	10,104,070.00
Cash at Bank	1,743,139.32		
Receipts-Research Funds	259,146.00	“ Capital Expenses paid	95,988.00
Foreign Receipts for various Projects	7,840,550.37	Payments-Research Funds	-
(As per Schedule attached)		Other expenses paid	65,662.50
Recovery from Salary	254,413.00	Salary Recovery Account	276,913.00
Other Advance Recovered	90,000.00	Other Advances paid	90,000.00
Security Deposit	-	Paid to Research Projects	-
Income Tax recovery	42,243.00	Security Deposit paid	861,020.00
Term Deposit SBT	4,614,544.00	Term Deposits SBI	3,000,000.00
Interest Received	105,562.68	Income Tax paid	42,243.00
Tax,Welfare fund recoveries	2,555.00	Tax,Welfare fund recoveries	2,555.00
VAT,GST collected	20,437.00	VAT,GST paid	20,437.00
		To Closing Balance:-	
		Cash in Hand	68,951.00
		Cash at Bank	398,593.87
<b>TOTAL</b>	<b>15,026,433.37</b>	<b>TOTAL</b>	<b>15,026,433.37</b>

Vide my report of even date attached.

Trivandrum  
9th November 2018

**Finance Manager**  
(Projects)

**DIRECTOR**

**T.AJITH KUMAR B.Com, FCA**  
CHARTERED ACCOUNTANT  
MEM. NO: 209348



**T.AJITH KUMAR B.Com, FCA**  
**CHARTERED ACCOUNTANT**

Chaitaniya,  
T.C. 54/2214-2  
Sreedharan Pillai Road  
Pappanamcode P.O.  
Thiruvananthapuram 695 018  
Telephone: 0471-2495939  
Mobile: 9349990489  
E-mail: ajithkumarca@yahoo.com

## **AUDITOR'S REPORT**

I have examined the Balance Sheet of the Project Cell of Regional Cancer Centre, Thiruvananthapuram as at 31st March 2018 and the Income and Expenditure Account together with the Schedules and notes thereon for the year ended on that date which are in agreement with the books of account maintained by the said division of Project Cell of RCC.

I have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit. In our opinion proper books of accounts have been maintained by the Division of Project Cell of Regional Cancer Centre so far as appears from our examination of the books, and subject to the following observations,

- (i) The balances under different project accounts, training funds are subject to the balance confirmation as at the closing date.
- (ii) The accounting towards grossing up of receipts and income with the tax deductions (TDS) is done based on the tax deduction details in the statement of 26AS available at the time of audit.
- (iii) Research Fund denotes Funds set apart for undertaking internal research projects of RCC and it includes interest on bank fixed deposits received and accrued during the year.

In my opinion and to the best of my information, and according to information given to us the said accounts give a true and fair view:-

- (i) In the case of the balance sheet, of the state of affairs of the project cell of RCC as at 31st March 2018, and
- (ii) In the case of the Income and Expenditure Account of the surplus for the year ending on 31st March 2018.

Trivandrum  
9th November 2018

**T.AJITH KUMAR B.Com, FCA**  
**CHARTERED ACCOUNTANT**  
MEM. NO. 209348

**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM**  
**(REG. No. 567/81)**  
**PROJECT CELL**  
**(Financial Assistance received from**  
**National Agencies for Research Projects)**  
**Balance Sheet as on 31st March 2018**

Liabilities	Amt (Rs. Ps.)	Amt (Rs. Ps.)	Assets	Amt (Rs. Ps.)	Amt (Rs. Ps.)
CAPITAL FUND		9,963,577.62	FIXED ASSETS (Sch.5)		93,693.05
EARMARKED FUNDS					
R&D Fund (Sch.1)	99,051,875.71		INVESTMENTS		194,165,256.33
Training Fund (Sch.2)	22,397,184.53		(Schedule-6)		
Internal Project Fund (Sch.3)	1,759,173.05				
Project Fund (Sch.4)	61,287,822.08				
Grant in aid-Infosys	2,500,000.00		CURRENT ASSETS &		
Endowment Fund-Infosys	50,000,000.00	236,996,055.37	LOANS & ADVANCES		
			Cash in Hand - Sch-7	131,013.00	
Other Current Liabilities			Cash at Bank - Sch-8	41,776,902.98	41,907,915.98
Security Deposits	212,544.00		Other Current Assets		
EPF Recovery	7,672.00		and Loans & Advances		13,309,358.63
			(Sch.9)		
Int. on Endowment fund-Infosys	2,296,375.00	2,516,591.00			
TOTAL		249,476,223.99	TOTAL		249,476,223.99

Trivandrum  
9th November 2018

Finance Manager  
(Projects)

DIRECTOR

T.AJITH KUMAR B.Com, FCA  
CHARTERED ACCOUNTANT  
MEM. NO: 209348

**PROJECT CELL**  
**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM**  
**(REG. No. 567/81)**  
**Income and Expenditure Account**  
**for the year ended on 31st March 2018**

Expenditure	Amt (Rs. Ps.)	Income	Amt (Rs. Ps.)
Salary Paid	473,503.00	Income from Projects	2,317,125.90
Travelling Expenses	1,000.00	Interest received	11,973,267.09
Audit Fee	68,500.00		
Printing & Stationery	1,063.00		
Computer Stationery	2,870.00		
Postage Expenses	403.00		
Other Miscellaneous Expenses	51,212.00		
Depreciation	11,338.58		
Excess of Income Over Expenditure	13,680,503.41		
<b>TOTAL</b>	<b>14,290,392.99</b>	<b>TOTAL</b>	<b>14,290,392.99</b>

Trivandrum  
9th November 2018

Finance Manager  
(Projects)

DIRECTOR

T.AJITH KUMAR B.Com, FCA  
CHARTERED ACCOUNTANT  
MEM. NO: 209348

**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM**  
**PERIPHERAL CENTRE OF RCC AT NEENDAKARA**  
**Receipts and Payments Account**  
**for the year ended on 31st March 2018**

Payments	Amount (Rs. Ps.)	Income	Amount (Rs.Ps.)
Salary	2,505,194.00	Grant-in-Aid received (G.O Rt.No.3222/2017/ H&FWD, Dt.14/11/2017)	2,500,000.00
Medicines	1,184,005.00	Grant-in-Aid received (G.O Rt.No.842/2018/ H&FWD, Dt.14/03/2018)	2,000,000.00
Consumables	206,587.00	Excess expenditure advanced by RCC	5,017.00
Travel Expenses	82,742.00		
Contingencies	127,575.00		
Detection Camp Expenses	398,914.00		
<b>TOTAL</b>	<b>4,505,017.00</b>	<b>TOTAL</b>	<b>4,505,017.00</b>

Trivandrum  
20th September 2018

DIRECTOR

T.AJITH KUMAR B.Com, FCA  
CHARTERED ACCOUNTANT  
MEM. NO: 209348

**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM**  
**PERIPHERAL CENTRE OF RCC AT NEENDAKARA**  
**Utilisation Certificate**

Sl.No.	Letter No.& date	Major/Subheads	Amount (Rs. in lakhs)
1	Grant-in-Aid received (Rt.No.3222/2017/H&FWD, Dt.14/11/2017)	2210-05-200-97-31(NP), Grant in Aid-Salary	15.00
2	Grant-in-Aid received (Rt.No.3222/2017/H&FWD, Dt.14/11/2017)	2210-05-200-97-36(NP), Grant in Aid-Non Salary	10.00
3	Grant-in-Aid received (Rt.No.842/2018/H&FWD, Dt.14/03/2018)	2210-05-200-97-31(NP), Grant in Aid-Salary	10.00
4	Grant-in-Aid received (Rt.No.842/2018/H&FWD, Dt.14/03/2018)	2210-05-200-97-36(NP), Grant in Aid-Non Salary	10.00
	<b>Total</b>		<b>45.00</b>

Certified that out of **Rs. 45,00,000/-** of grants-in-aid sanctioned for the peripheral Centre at Neendakara, Kollam District, Regional Cancer Centre during the year **2017-18**, a sum of **Rs. 45,05,017/-** has been utilized for the purpose for which it has been sanctioned. The Receipts and Payments account duly audited attached with this utilization certificate.

Director  
20th September 2018

T.AJITH KUMAR B.Com, FCA  
Chartered Accountant  
MEM. NO. 209348

## Abbreviations used

3DCRT	Three-Dimensional Conformal Radiotherapy	IGRT	Image-Guided Radiation Therapy
AAR	Age-Adjusted incidence Rate	IMRT	Intensity-Modulated Radiation Therapy
ABG	Arterial Blood Gas	MCh	Magister of Chirurgiae
AIDS	Acquired Immune Deficiency Syndrome	MD	Doctor of Medicine
AML	Acute Myeloid Leukaemia	MLT	Medical Laboratory Technology
ASHA	Accredited Social Health Activist	MR	Magnetic Resonance
BARC	Bhabha Atomic Research Centre	MRI	Magnetic Resonance Imaging
BCR-ABL	Breakpoint Cluster Region-Abelson murine leukaemic viral gene	MS	Master of Surgery
BMT	Bone Marrow Transplantation	MSc	Master of Science
BSc	Bachelor of Science	NACO	National AIDS Control Organisation
CGHS	Central Government Health Scheme	NBRR	Natural Background Radiation Registry
CHIS	Comprehensive Health Insurance Scheme	NCC	National Cadet Corps
CML	Chronic Myeloid Leukaemia	NF- $\kappa$ B	Nuclear Factor Kappa-B Cells
CNS	Central Nervous System	NGO	Non-Governmental Organisation
CR	Computed Radiography	NHL	Non-Hodgkin's Lymphoma
CR	Crude Incidence Rate	NSS	National Service Scheme
CSR	Corporate Social Responsibility	OGD	Oesophago-Gastroduodenoscopy
CT	Computed Tomography	OP	Out Patient
CVAD	Central Venous Access Device	PBCR	Population Based Cancer Registry
DM	Doctorate of Medicine	PC	Packed Cells
DNA	Deoxyribonucleic Acid	PCR	Polymerase Chain Reaction
DNB	Diplomate of National Board	PET/CT	Positron Emission Tomography/Computed Tomography
DR	Digital Radiography	PICC	Peripherally Inserted Central Catheter
ECDC	Early Cancer Detection Centre	PML-RARA	Promyelocytic Leukaemia/Retinoic Acid Receptor Alpha
ECRT	Extra Corporeal Radiotherapy	PR	Progesterone Receptor
ELISA	Enzyme-Linked Immunosorbent Assay	RBC	Red Blood Corpuscles
ER	Estrogen Receptor	RCC	Regional Cancer Centre
ESI	Employees' State Insurance	RGCB	Rajiv Gandhi Centre for Biotechnology
ESMO	European Society for Medical Oncology	RILI	Radiation Induced Lung Injury
ESTRO	European Society for Radiotherapy and Oncology	RNA	Ribonucleic Acid
FISH	Fluorescence In Situ Hybridization	RT	Radiation Therapy
FNAC	Fine Needle Aspiration Cytology	RT-PCR	Reverse Transcription Polymerase Chain Reaction
GA	General Anaesthesia	SBRT	Stereotactic Body Radiation Therapy
HbA1c	Haemoglobin A1c	SCTIMST	Sree Chitra Tirunal Institute for Medical Sciences and Technology
HBCR	Hospital Based Cancer Registry	SERS	Surface-Enhanced Raman Scattering
HbsAg	Hepatitis B surface Antigen	SPECT	Single-Photon Emission Computed Tomography
HCV	Hepatitis C Virus	SRS/SRT	Stereotactic Radiosurgery & Radiotherapy
HDR	High Dose Rate	STAT3	Signal Transducer and Activator of Transcription-3
HER2	Human Epidermal Growth Factor Receptor 2	TBI	Total Body Irradiation
HIV	Human Immunodeficiency Virus	TLD	Thermoluminescent Dosimeter
HMCPF	Health Minister's Cancer Patient Fund	TNBC	Triple Negative Breast Cancer
HPLC	High Performance Liquid Chromatography	TSET	Total Skin Electron Therapy
HPV	Human Papillomavirus	VIA	Visual Inspection with Acetic Acid
IAEA	International Atomic Energy Agency	VIAM	Visual Inspection with Acetic Acid under Magnification
IARC	The International Agency for Research on Cancer	VILI	Visual inspection with Lugol's Iodine
ICMR	Indian Council of Medical Research	VSSC	Vikram Sarabhai Space Centre
ICU	Intensive Care Unit		
IgG	Immunoglobulin G		

# Acknowledgements

Ministry of Health & Family Welfare, Government of India  
Ministry of Information Technology, Government of India  
Department of Science and Technology, Government of India  
Council of Scientific and Industrial Research, Government of India  
Department of Biotechnology, Government of India  
Director General of Health Services, Government of India, New Delhi  
Department of Health & Family Welfare, Government of Kerala  
State Planning Board, Government of Kerala  
Director of Health Services, Government of Kerala, Thiruvananthapuram  
World Health Organization, Geneva, Switzerland  
International Agency for Research on Cancer (IARC), Lyon, France  
Union for International Cancer Control (UICC) Geneva, Switzerland  
World Health Organization, Regional Office, New Delhi  
National Cancer Institute, Bethesda, Maryland, USA  
Memorial Sloan-Kettering Cancer Centre, New York, USA  
National Cancer Centre, Singapore  
Health Research Foundation, Japan  
Kagoshima University, Japan  
Finnish Cancer Society, Finland  
Indian Council of Medical Research, New Delhi  
Atomic Energy Commission, Government of India  
Bhabha Atomic Research Centre, Bombay  
Indian Space Research Organisation  
Sree Chitra Tirunal Institute of Medical Sciences & Technology, Thiruvananthapuram  
Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram  
Centre for Cellular and Molecular Biology, Hyderabad  
University of Kerala, Thiruvananthapuram  
Kerala University of Health and Allied Sciences, Thrissur  
Mahatma Gandhi University, Kottayam  
University Grants Commission  
Kerala State Committee on Science, Technology and Environment, Thiruvananthapuram  
C-DAC, Thiruvananthapuram  
Centre for Earth Science Studies, Thiruvananthapuram  
Medical College, Thiruvananthapuram  
Sree Avittam Thirunal Hospital for Women and Children, Thiruvananthapuram  
Dental College, Thiruvananthapuram  
Department of Economics and Statistics, Kerala  
Drugs Controller, Thiruvananthapuram  
College of Pharmaceutical Sciences, Thiruvananthapuram  
Corporation of Thiruvananthapuram  
Regional Cancer Association, Thiruvananthapuram  
Care Plus, Thiruvananthapuram  
Asraya, Thiruvananthapuram  
Pratyasha, Thiruvananthapuram  
All our Well-wishers and Friends

OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES  
OVER THREE DECADES OF CHANGING LIVES



REGIONAL  
CANCER  
CENTRE

P.O. Box 2417, Medical College Campus  
Thiruvananthapuram - 695 011, Kerala, India