

REGIONAL
CANCER
CENTRE

**OVER THREE DECADES OF
CHANGING LIVES**

ANNUAL REPORT 2015-16



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 2015-2016



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

REGIONAL CANCER CENTRE

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Published by
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GOVERNING BODY

1. Shri. Oommen Chandy
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Hon'ble Minister for Health, Family Welfare and Devaswoms
Government of Kerala Vice-Chairman
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Secretary to Government
Health & Family Welfare Department, Government of Kerala Alt.Vice-Chairman
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Secretary, Finance (Expenditure), Finance Department, Government of Kerala Member
5. Shri.V.K. Baby, IAS (From 7 October 2015)
Secretary, Finance (Resources), Finance Department, Government of Kerala Member
6. Dr. Alok Sheel, IAS
Additional Chief Secretary to Government,
Planning & Economic Affairs Department, Government of Kerala Member
7. Shri. Bhanu Pratap Sharma, IAS
Secretary to Government, Ministry of Health and Family Welfare, Government of India Member
8. Dr. Jagdish Prasad
Director General of Health Services
Ministry of Health and Family Welfare, Government of India Member
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Director, Sree Chitra Tirunal Institute for
Medical Sciences & Technology, Thiruvananthapuram Member
10. Dr. Asha Kishore (From 15 July 2015)
Director, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram Member
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Director of Medical Education, Thiruvananthapuram Member
14. Dr. Sreekumari K (10 June-16 September 2015)
Director of Medical Education (i/c), Thiruvananthapuram Member
15. Dr. Ramla Beevi (From 17 September 2015)
Director of Medical Education, Thiruvananthapuram Member
16. Dr. Ramdas Pisharody (Till 30 April 2015)
Principal, Government Medical College Thiruvananthapuram Member
17. Dr. P.M. Saffia (1-31 May 2015)
Principal, Government Medical College Thiruvananthapuram Member
18. Dr. Thomas Mathew (From 1 June 2015)
Principal, Government Medical College Thiruvananthapuram Member
19. Dr. Paul Sebastian
Director, Regional Cancer Centre, Thiruvananthapuram Convener

EXECUTIVE COMMITTEE

1. Dr. K. Ellangovan, IAS
Secretary to Government
Health & Family Welfare Department, Government of Kerala
Chairman
2. Shri. Rajesh Kumar Sinha, IAS (Till 6 October 2015)
Secretary, Finance (Expenditure)
Finance Department, Government of Kerala
Member
3. Shri.V.K. Baby, IAS (From 7 October 2015)
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Member
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Director, Regional Cancer Centre, Thiruvananthapuram
Convener



Dr. Paul Sebastian
Director

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. During the period under report, the 35th year of RCCs crusade against cancer, we provided specialized cancer care to 2,32,198 patients including 16,042 newly registered cases.

We have had another fruitful period in the long voyage of compassionate patient care through multidisciplinary team approach and state-of-the-art technologies. The Centre made major strides during the report period, with the opening of a 38 crore multi-storey building with enhanced physical amenities for Out Patient clinics and other major departments. The new block, which was constructed using the State Government funding, could ease the acute space crunch that we have been facing for decades. Another notable achievement was the commissioning of Positron Emission Tomography scan unit (PET/CT) as a first installation in public healthcare sector in Kerala. With the introduction PET services, the Centre reaffirms its commitment to make cancer care affordable to the deserved. A state-of-the-art Simulation lab was set up in the Division of Anaesthesiology under the FIST programme of Department of Science and Technology, Govt. of India. The system facilitates clinical competency through simulation based learning in a controlled risk-free environment. The Division of Imageology acquired a Doppler ultrasound machine with facility for elastography contrast studies and transrectal probes. Transfusion Medicine division acquired a cell separator to augment plateletpheresis procedures.

The extraordinarily generous funding from State and Central Governments and also from organizations of repute is worth-mentioning. A full-fledged 3200 sq. ft. area Paediatric Oncology OP block with five consulting rooms, two counselling rooms, one observation room and a waiting area was constructed and made operational at a cost of Rs. 85 lakhs. This work was completed in record time with the generous support of Federation of Malayali Association of America (FOMA). Another 14 storey block is on the anvil, for which the State Government would provide Rs. 178 crore through plan funds.

Patient welfare schemes benefitted 12,581 new patients to avail treatment worth of Rs. 58.86 crores through various schemes such as Cancer Suraksha Scheme, 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 and Health Minister's Discretionary Fund.

Rise in cancer cases in Kerala is a cause for serious concern. The recent report of Population Based Cancer Registry (PBCR) of the Centre also validates the notion of cancer as an emerging public health problem in the State. When compared with data from other 25 PBCRs across the country, Thiruvnanthapuram district followed by Kollam has the highest incidence of cancer in the country. Data from Thiruvananthapuram PBCR is used to estimate cancer burden and pattern in Kerala. This may not be truly representative. Hence, the situation warrants a State level cancer registry to provide an accurate estimate of magnitude of cancer. Government of Kerala has assigned RCC to chart out a comprehensive cancer registry for the state of Kerala as a backup for better cancer control strategies.

Since cancer incidence is on the rise, screening and primary care requires much attention. The Centre has already taken up various community interventions in terms of community outreach, infrastructure building and development of trained manpower. Through 444 cancer detection and 184 cancer education programmes, 491 cancers and 1762 precancers were detected. We have been represented in many Government-supported Non-Communicable Disease Prevention programmes. We are in liaison with Tobacco Free Initiative movement in India and also did many programmes on tobacco control in collaboration with Government departments and other reputed institutions.

Many research studies conducted by the Centre have highlighted a close link between tobacco usage and increased oral and lung cancer risks. The hospital cancer registry shows an alarming increase in thyroid cancer, especially among women aged between 35 and 60 years. Taking a cue from various findings, a research on thyroid cancers have already been initiated in collaboration with Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram. The Centre has tied up with Kerala Agricultural University to study anticancer properties of a rare genus of a fungus, which is commonly used for biocontrol. Preliminary studies conducted at RCC indicated that the species has the potential to suppress tumour cells and prevent proliferation of lung cancer cells.

Several of our faculty, staff and students received many awards and other awards of excellence including nine PhDs. Dr. Bipin T. Varghese, Additional Professor of Surgical Oncology received special appreciation award from Ministry of Health and Family Welfare, Govt. of Kerala in appreciation of his commendable services. Dr. K. Chandramohan, Additional Professor of Surgical Oncology has received ICRETT Fellowship in Cancer Surgery for training at the Tokyo Metropolitan Komagome Hospital, Japan. Dr. P. G. Balagopal, Additional Professor of Surgical Oncology has received P. Kesavadev Memorial award for health literature. Dr. T. T. Sreelekha, Assistant Professor of Cancer Research has received Dr. S. Vasudev Award (2015) from Kerala State Council for Science Technology and Environment for the best research project. Dr. C. Guruvayoorappan, Assistant Professor of Cancer Research has received Young Scientist Award (Saraswathy Srinivasan Prize) instituted by Tamil Nadu Academy of Science and ISTE-Periyar Award of Indian Society for Technical Education. Sri. V. Surendran Nair, Public Relation Officer has won Daya Puraskaram by Snehathalam Charitable Society, Kollam for his contribution in cancer awareness through print and electronic media.


The scientific events organized by the Centre during the period covered disciplines of radiotherapy, pathology, anaesthesia, radiation physics, nursing etc. Currently 155 research projects including 38 extramurally funded projects are being undertaken in the Centre. The faculty, students and the scientists of the institute published 181 scientific papers including journal articles, chapters in books and conference papers during the period. Out of 111 journal articles, 72 were published in peer reviewed indexed journals. Thirtythree residents in Medical, Paediatric and Surgical Oncology superspeciality courses and 46 residents in Anaesthesia, Pathology, Radiodiagnosis and Radiotherapy MD programmes are undergoing training. Medical Council of India has enhanced the intake capacity for MD Anaesthesia programme from three to six during the report period.

Dr. M.K.C. Nair, Vice-Chancellor, Kerala University of Health Sciences, Dr. Scott Berry, Medical Oncologist, Sunnybrook Odette Cancer Centre, Toronto, Canada, Dr. Christopher Booth, Associate Professor of Medical Oncology and Cancer Health Services Researcher, Queen's University, Canada, Dr. Ashraf Mannan, Director of Medical Genetics and Genomics, Strand Life Sciences, Bangalore and Dr. Diana Tait and Dr. Glees, Royal Marsden Hospital, London visited the Centre and delivered talks on their specialities.

We thank all organizations and philanthropists for their generous support with whose help we continue to deliver the world's best quality service to our patients. RCC-based voluntary organizations, including Asraya, Careplus and Prathyasa had continued their financial and social support for cancer survivors and their families.

We thank our organised workforce and the untiring efforts of each and everyone in bringing laurels to the Centre. We are inspired by our patients, encouraged by our success and we need to strive even better in our crusade against cancer.

I am concluding. On the pages that follow, the annual report of activities of various divisions, peripheral centres, clinics and audited accounts of RCC for the period 2015-16 are presented.



Dr. Paul Sebastian
Director

RCC Profile at a Glance

- 16,042 new cases
- 2,16,156 review cases
- 11,237 in-patient admissions
- 48,467 pathology reports
- 58,159 imaging studies
- 64,055 nuclear medicine studies
- 3,64,359 clinical laboratory investigations
- 26,353 microbiology investigations
- 6886 patients were treated with external radiotherapy and 1646 patients with brachytherapy
- 5547 surgical and 1830 endoscopic procedures
- 10,089 patients were administered chemotherapy
- 30 bone marrow transplantations
- 3328 cytogenetics, FISH & RTPCR based diagnostic studies
- 33 residents in Medical, Paediatric and Surgical Oncology superspeciality courses
- 46 residents in Anaesthesia, Pathology, Radiodiagnosis and Radiotherapy postgraduate courses
- 25 PhD scholars
- 444 cancer detection programmes and 184 cancer education programmes
- 155 ongoing research projects
- 24 hour pharmacy services
- 24 hour chemotherapy services

Major Diagnostic & Treatment Facilities Available

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
- X-ray units
- Computed radiography system
- Picture Archiving and Communication System (PACS)

Nuclear Medicine

- 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
- Plateletpheresis
- Plasma thaw bath
- Automatic component extractor T-ACE, for preparation of leucoreduced products.
- Fully automated ELISA machine
- Automated haematology analyser

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
- RTPCR

TREATMENT FACILITIES

Radiation Oncology

- Linear accelerators
- Telecobalt unit
- IGRT, IMRT/Rapid Arc, SRS/SRT, 3D conformal RT & portal imaging
- Total body irradiation (TBI)
- Image guided brachytherapy for cervix cancer
- Digital simulator & CT simulator
- Treatment planning systems
- HDR brachytherapy
- Quality assurance equipments

Surgical Oncology

- 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

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 Care

- 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

- Anaesthesia Simulation Lab

Imageology

- Doppler ultrasound machine with facility for elastography contrast studies and transrectal probes

Nuclear Medicine

- PET-CT Scanner

Transfusion Medicine

- Haemonetics Cell Separator

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. The Centre is also sought-after by students from various universities for their training in different areas such as Radiotherapy, Surgical Oncology, Cancer Research (Biotechnology), Cancer Epidemiology, Nursing, Blood Banking, Laboratory Technology, Cytopathology, Medical Oncology, Head & Neck Cancers, Gynaecologic Oncology, Pathology, Imageology, Nuclear Medicine, Microbiology, Radiation Physics, etc. Community Oncology Division also generates trained manpower by organising trainer-trainee programmes for doctors, gynaecologists, dentists, nurses, paramedicals, health workers, other professionals and lay-public to enable early detection of cancer. Training is also provided for postgraduate trainees from various Medical and Dental Colleges within and outside Kerala. 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 (Radiodiagnosis)	2	3 Yrs
MD (Anaesthesia)	6	3 Yrs
MD (Pathology)	2	3 Yrs
Fellowship in Head & Neck Surgery	1	2 Yrs
Fellowship in Gynecologic Oncologic Surgery	1	2 Yrs
Post Doctoral Certificate Course in Oncopathology	4	2 Yrs
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
Cytotechnology	4	1 Yr
Cytotechnician	6	6 Months
Histotechnology	6	9 Months
Medical Documentation Training Programme	10	1 Yr
Certificate Course in Palliative Care	25/session	8 weeks distance learning programme (July & November sessions)

PATIENT WELFARE SERVICES

Officers-in-charge

Patient Welfare Officer: Latha PT

Public Relations Officer: Surendran Nair V

Medical Records Officer-I: Chandrika D

Medical Records Officer-II: Anilkumar K

Assistant Administrative Officer (Clinical Services): Sreekumar B

RCC has implemented several schemes for providing economic assistance, free food, free drugs and various rehabilitation facilities for patients and their families through governmental and non-governmental support programmes.

Central and State Government Schemes

Both the Central and State Governments have initiated several generous schemes to ensure free or subsidized treatment for patients as depicted in the table below.

State and Central Government Schemes (1 April 2015 to 31 March 2016)

Scheme	Patients enrolled during the period (New cases)	Amount spent during the period (Lakhs)	Total no. benefited up to 31 March 2016	Total Amount Spent (Lakhs)
Cancer Suraksha Scheme (Govt. of Kerala)	522	480.55	3859	2733.65
Chis Plus (Govt. of Kerala)	4765	1198.13	22042	4881.29
Karunya Benevolent Fund (Govt. of Kerala)	4235	2856.35	13374	7855.33
Sukrutham (Govt. of Kerala)	2513	1072.36	3468	1293.24
Thalolam (Govt. of Kerala)	21	4.91	70	17.44
Scheduled Tribe Patient Fund (Govt. of Kerala)	38	21.47	282	178.94
Snehasanthwanam for Endosulfan Victims (Govt. of Kerala)	2	6.48	34	29.13
Prime Minister's Relief Fund	153	99.96	770	694.73
Health Minister's Rashtriya Arogya Nidhi (RAN)	331	144.77	1561	559.98
Health Minister's Discretionary Fund	1	1.10	15	6.65
Total	12581	5886.08	45475	18250.38

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

163 patients reported for treatment under the scheme during the period.

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 4630 patients during the reporting period.

3. Free Food ('Akshayapathram')

Free food was provided to 8400 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

'Prathyasa', 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, 175 patients including 12 new patients received support worth Rs. 196.66 lakhs.

DIVISIONS

RADIATION ONCOLOGY

Jayaprakash PG

Professor & Head

Professors: Ramadas K, Ratheesan K, Francis V. James

Additional Professors: Beela Sarah Mathew, Aswin Kumar, Sivanandan CD, Rejnish Kumar R, Susan Mathews

Associate Professors: Thomas Koilparambil, Asha Arjunan, Sajeed A, Kainikkal CT

Assistant Professors: Arun Sankar S, Roshni S, Malu Rafi, Rajeev KR, Tapesh Bhattacharyya, Geethi MH, John Joseph, Priya Balakrishnan

Senior Residents: Aparna MP, Biju Azariah, Milan A, Naveen P. Kumar, Geethu Babu

Resident Medical Officer: Lijeesh AL



The Division is responsible for primary care of majority of solid tumours through the four major site-specific clinics, Head & Neck, Breast & Central Nervous System, Gynaec, Genitourinary & others and Chest & Gastrointestinal. The division could reduce the treatment toxicities and improve the patient outcome by increased utilization of high-precision

radiotherapy techniques such as IMRT, IGRT, Respiratory-gating, SBRT and SRS. The Division managed 11,613 new cases during the reporting period. It also works with Medical and Paediatric Oncology divisions in providing radiotherapy to the patients of the concerned clinics.

Clinical services

External radiotherapy was given for 6886 patients and brachytherapy for 1646 patients.

Specialised Radiotherapy Services	
Services	No.
3D CRT	1710
IGRT/IMRT	453
SRS/SRT/SBRT	48
Total brachytherapy procedures	1646
Image guided brachytherapy	135 (406 sessions)

Academic activities

- MD programme in Radiotherapy with an annual intake of eight seats. The first batch of eight students has successfully completed their course
- International Workshop on Precision Radiotherapy (IWPR) on Gynaec, Lung and Gastro-intestinal malignancies, 12-13 September 2015
- Contouring Workshop on Ano-rectal Malignancies, on 7 November 2015
- Regular clinical posting for MD and PG diploma radiotherapy students of Government Medical College, Thiruvananthapuram
- Regular tumour board meeting in gynaecologic oncology, uro-oncology, gastroenterology, and neuro-oncology with faculty from Government Medical College, Thiruvananthapuram, Sree Avitom Thirunal Hospital and SCTIMST, Thiruvananthapuram
- Head & neck and Paediatric-oncology tumour boards

Ongoing Doctoral Research Programmes			
Sl. No.	Research Scholar	Title of Study/University	Guide
1	Aswin Kumar	Quality of life of cervical cancer patients undergoing radical radiotherapy/University of Tampere, Finland.	Dr. Ansi Auvinen
2	Susan Mathews	Image guided adaptive brachytherapy of carcinoma cervix in a resource limited setting/ University of Kerala	Dr. M. Krishnan Nair
3	Sajeed A	Modification of radiotherapy by physical parameters/ University of Kerala	Dr. Raghu Ram K. Nair

SURGICAL ONCOLOGY

Iqbal Ahamed M

Professor and Head

Professor: Paul Sebastian

Additional Professors: Shaji Thomas, Bipin T.Varghese, Paul Augustine, Chandramohan K, Elizabeth Mathew Iype, Balagopal PG, Rema P, Madhu Muralee, Arun Peter Mathew

Associate Professors: Kurian Cherian, Suchetha S

Assistant Professors: Nebu Abraham George, Mira Sudam Wagh, Rexeena V. Bhargavan



Surgical Oncology Division provided specialized site wise surgical expertise for primary treatment of majority of solid organ cancers. This year the Division was able to enhance the existing patient care protocols in line with the NABH standards and improve patient outcomes as well as effectively utilized the existing facilities to increase patient turnover without increasing the financial stress on the patients. The Division enhanced the trainee exposure to the practical aspects of surgical oncology which was reflected in the cent percent pass in the MCh Surgical Oncology examination (June- August session 2015).

As compared to previous years:

- Increased number of head and neck surgeries using minimal

access techniques especially for skull base tumours

- Increased utilisation of oncoplastic procedures and reconstructive surgeries in patients with breast cancer resulting in reduced morbidity without compromising therapeutic outcomes
- Increased number of minimally invasive surgeries for colorectal, gynaecological and thoracic malignancies
- More numbers of multivisceral resections for pelvic malignancies and hepato-biliary-pancreatic resections which required advanced levels of intraoperative care and intensive post-operative care which could be delivered in efficient manner in collaboration with Division of Anaesthesiology.

Major Procedures	
Sites	No.
Head and Neck	1150
Breast	1212
Gastrointestinal	614
Gynecologic	326
Genito-Urinary	85
Bone and sarcoma	205
Total	3592

Minor Procedures	
Procedure	No.
Minor cases	1945
LEEP	10
Total	1955

Endoscopy Procedures	
Procedure	No.
Nasopharyngolaryngoscopy	630
Bronchoscopy	145
Oesophagoduodenoscopy	1005
Colposcopy	28
Hysteroscopy	2
Percutaneous Endoscopic Gastrostomy	5
Endoscopic dilatation/Stenting	15
Total	1830

Academic activities

- MCh programme in Surgical Oncology with an annual intake of six seats
- Fellowship in Head and Neck Surgery
- Fellowship in Gynaecologic Oncologic Surgery
- CME on Endoscopic Skull base Surgery, on 2 August 2015
- Training programme for MS, MD and MDS postgraduate students from Kerala and adjoining parts of Tamil Nadu and Karnataka

MEDICAL ONCOLOGY

Geetha N

Professor & Head

Additional Professors: Sreejith Nair, Prakash NP

Assistant Professors: Shruti Prem (Till 31.12.2015),

Anoop TM, Lakshmi Haridas

Senior Resident: Sugeeth MT

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. Dose intense protocols were used for the treatment of all leukaemias and lymphomas. 2853 patients were admitted for the administration of intensive chemotherapy and management of emergencies and complications. 220 new

patients with chronic myeloid leukaemia were enrolled in the Novartis Patient Assistance (NOVA) programme and were given imatinib free of cost.

2375 new cases and 40,666 review cases were seen during the report period. In the BMT unit, stem cell transplantation following high dose chemotherapy was performed for 30 patients.



Academic Activities

- DM Medical Oncology programme with an annual intake of three seats
- Post graduate students in general medicine, transfusion medicine and radiation oncology were given training in medical oncology.

PAEDIATRIC ONCOLOGY

Kusumakumary P
Professor & Head

Additional Professor: Priya Kumari T

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. 645 new cases and 14,728 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 (neutrally adjusted ventilatory assist). As part of providing comprehensive paediatric care, services of counsellor, parent support provider and pharmacist are also provided in the division..

Academic activities

- DM programme in Paediatric Oncology with an annual intake of two seats
- Regular training to the postgraduates of RCC
- Regular training to postgraduate students of other Medical Colleges in Kerala as well as to postgraduate students from SAT Hospital, Thiruvananthapuram and various private Medical Colleges

Cultural activities and visits

Various cultural activities were organized for children and their parents during festivals like Onam, Christmas, New Year, Vishu, Deepavali and Children's Day. Monthly birthday celebrations were organized for paediatric patients with generous contribution from UST Global.



Patient Statistics

Cases	No.
Acute Lymphoblastic Leukaemia	209
Acute Myeloid Leukaemia	28
Chronic Myeloid Leukaemia	2
Brain tumour	82
Osteosarcoma	15
Ewing's sarcoma/PNET	25
Rhabdomyosarcoma	22
Hodgkin's lymphoma	20
Non-Hodgkin's lymphoma	34
Wilms' tumour	25
Neuroblastoma	52
Hepatoblastoma	5
Germ cell tumour	14
Retinoblastoma	12
Soft tissue sarcoma	13
Nasopharyngeal carcinoma	2
Langerhans cell histiocytosis	15
Miscellaneous	43
Non malignant	27
Total	645

PATHOLOGY

Jayasree K

Professor & Head

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

Assistant Professors: Anila KR, Renu S, Priya Mary Jacob, Jayasudha AV, Neelima Radhakrishnan

Lecturer: Sindhu Nair P

Senior Residents: Rari P. Mony, Jalaja Mary George, Jayapriya G

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
19,098	20,945	8424	48,467

Immunohistochemistry (Surgical pathology + Cytopathology + Haematopathology)	Frozen section	FISH	Flow cytometry
25,405	1096	106	746

Surgical Pathology

Specimens from RCC	Specimens for Review	Specimens for Second Opinion	Total
11,474	6813	811	19,098

Cytopathology

FNAC	Cervical smear	Sputum	Total
9101	8670	3174	20,945

Haematopathology

Bone marrow	Peripheral smear	Slide review	Total
4228	4090	106	8424

Academic activities

- MD programme in Pathology, Post Doctoral Certificate Course (PDCC) in Oncopathology, Quality Excellence Programme for Technicians, Cytotechnology, Histotechnology and Cytotechnician courses.
- Training given to students in MCh Surgical Oncology, DM Medical Oncology, DM Paediatric Oncology and MD Radiotherapy from the Centre, and MD Pathology students from various Medical Colleges, MDS Pathology students from Dental Colleges, M.Sc. (MLT), B.Sc. (MLT) students and Histotechnology/Immunohistochemistry trainees.
- 'International CME on Lymphomas: Mysteries of the lymph node Revealed' from 9-10 January 2016.

IMAGEOLOGY

Ramachandran K
Professor & Head

Additional Professor: Venugopal M

Associate Professors: Jiji V, Sumod Mathew Koshy

Assistant Professors: Anil Prahladan, Anitha Sen, Priya A

Senior Resident: Jubiee Raj



The Division has two 500 mA X-ray machines, five portable 60 mA units, three colour doppler ultrasound scanners, mamotome biopsy unit, 16 slice MD CT, 1.5T MRI scanner with MR spectroscopy, and digital mammography with prone biopsy table. A state-of-the-art doppler ultrasound machine with facility for elastography contrast studies, transrectal probes, etc. was added during the period. There are facilities for MRI under anaesthesia.

New equipment acquired

- State-of-the-art doppler ultrasound machine with facility for elastography contrast studies and transrectal probes

Academic activities

- MD programme in Radiodiagnosis with an annual intake of two seats
- Advanced training in Diagnostic Imaging

- The faculty participated in activities like Trivandrum Radiology Club, Neurooncology Club, Pulmonary Radiology in SUT and RCC Breast Clinic.

Diagnostic & Interventional Studies

Investigations	No.
Plain X-rays	25,183
Barium studies	312
Ultrasound scans	10,023
Ultrasound guided intervention	1139
Doppler studies	440
Digital mammography	5790
CT scans	11,418
CT guided intervention	944
MRI scans	2910
Total	58159

NUCLEAR MEDICINE

Pradeep VM

Professor & Head

Additional Professor: Sreekumar A

Senior Resident: Lekha M. Nair



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).

Major achievement

- Commissioned PET-CT scanner by Shri. Oommen Chandy, Hon'ble Chief Minister of Kerala, on 19th February 2016. PET stands for Positron Emission Tomography. A positron is a positively charged electron which annihilates with a normal electron. This produces two gamma rays of 511 keV moving in opposite directions. This permits the use

of metabolically active substances such as glucose to be used in imaging. PET-CT is a fusion imaging technology that combines the metabolic details obtained from PET with the anatomical data obtained from CT.

Diagnostic & Clinical Services	
Investigations	No.
SPECT Gamma camera imaging	6908
Radio immunoassay	56,366
Thyroid cancer therapy	600
Thyrotoxicosis therapy	181
Total	64,055

ANAESTHESIOLOGY

Rachel Cherian Koshy
Professor & Head

Additional Professors: Mary Thomas, Venugopal A, Mallika Balakrishnan, Sudha P

Associate Professor: Viji S. Pillai

Assistant Professors: Bhagyalakshmi R, Rajasree O, Deepthi J, Prabhu, Subha R, Frenny Ann Philip, Radhikadevi B

Senior Residents: Gayathri Sasikumar, Manju 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, CT guided biopsies, etc. Two Drager Primus Anaesthesia workstations and four multiparameter monitors were acquired during the period. Acute pain service was revamped with more documentation. Elastomeric pumps were introduced for continuous epidural analgesia.

Major achievement

Anaesthesia Simulation Lab (first in Kerala) was commissioned on 19 February 2016.

Academic activities

- MD programme in Anaesthesia with an annual intake of six seats
- In house training in Basics of Mechanical Ventilation, 12-13 November 2015
- In house BLS and ACLS training for doctors, 2-4 December 2015



Anaesthetic Services

Pre-anaesthesia clinic

New cases	4207
Review cases	8355
Total	12,562

Anaesthesia Techniques

Total Intravenous Anaesthesia	36
GA+Epidural	861
GA+Controlled Ventilation	2584
GA+Spontaneous Ventilation	37
Epidural block	39
Combined spinal + epidural	215
Subarachnoid Block	112
MAC	38
Endotracheal tubes	2214
Supraglottic airway devices (I Gel)	1144
Central Venous access (non surgical)	31
Plexus & other blocks	8
GA + Block	111
Anaesthesia for children undergoing:	
MRI	29
Radiation therapy	622
CT simulation	33
Anaesthesia for brachytherapy	6
Anaesthesia for OGD scopy	6
Surgical ICU	
Number of patients on ventilator	82
Total ventilator days	166
Acute pain service	
Number of patients with epidural catheters	1115
Number of epidural days	2750

RADIATION PHYSICS

Raghu Ram K. Nair

Professor & Head

Additional Professors: Raghu Kumar P, 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

Activities of the division included calibration and quality assurance of radiotherapy equipments, treatment planning and quality assurance for 3D CRT, IMRT, IGRT, SRS, SRT, 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 and brachytherapy equipments, intra-operative, intraluminal and mould brachytherapy using Microselectron (V3) HDR.



Academic activities

- Organized one-day pre-conference workshop on 'Radiobiology and Radiobiological modelling in Radiotherapy' on 19 November 2015 and the 36th National Conference of Medical Physicists of India

(AMPICON 2015), from 20-22 November 2015 in collaboration with Association of Medical Physicists of India (AMPI)

Patient Services

Treatment given	No. of Patients
2D Radiotherapy	
CT Based Planning	2007
Conventional Planning	2668
3DCRT	1710
IMRT+IGRT	453
SRS+SRT+SBRT	48
Total	6886
Brachytherapy (Microselectron HDR)	
Gynaecologic	1471
Oesophagus	2
Image guided	135
Others	38
Total	1646
Grand total	8532
Simulation	
CT simulation	4357
Conventional simulation	4573

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	Shajju VS	Design and fabrication of a head phantom for dosimetric evaluation of radiotherapy treatment plans/ MAHER	Dr. Raghu Ram K. Nair
4	Debjani Phani	Design and development of quality assurance protocol for ultrasound imaging/MAHER	Dr. Raghu Ram K. Nair
5	Sharika V. Menon	Mathematical evaluation and phantom designing of radiotherapy treatments/ Bharathiar University, Coimbatore	Dr. Raghukumar P

CLINICAL LABORATORY SERVICES

Thomas Abraham

Scientific Officer Gr. I & Head



The division was involved in the analysis of blood and other body fluids of both out-patients and in-patients using biochemical, hematological, immunological and electrophoretic automation technologies. The division encompasses the disciplines of Phlebotomy, Clinical Chemistry, Haematology, Coagulation, Urine Analysis, Electrophoresis and Immunoassays. Many tests were being reported with appreciable turnaround time of 60 minutes or less through the bidirectional interfacing of all major analysers. The laboratory processed and analysed 3,64,359 samples consisting of 1,87,942 haematology, 1,44,353 biochemistry and 32,064 urine samples and generated 1.83 million test reports. Services were also provided for therapeutic drug monitoring for various drugs and serology for HIV and hepatitis.

Quality assurance

The division has been a participant in the External Quality Assurance Services of Bio-Rad Laboratories, USA for haematology and clinical chemistry proficiency testing programme. Daily quality control analysis was also performed for haematology, clinical chemistry and coagulation parameters.

Training provided

Training was provided to B.Sc. (Biochemistry), B.Tech. (Biotechnology), B.Sc. MLT and DMLT students from Mahatma Gandhi University, Kottayam.

Investigations done	
Investigations	No.
Biochemistry	9,38,898
Haematology	7,22,050
Coagulation parameters	16,305
Urinalysis	91,992
CSF (Sugar & Protein)	278
HbA1C	290
Lipid Profile	5255
Creatinine clearance test	2168
24 Hour urine protein	733
Cyclosporin	130
Methotrexate	1700
Serum Immunoglobulin Assay (IgG, IgA & IgM)	6603
Free Kappa	2111
Free Lambda	2111
Serum electrophoresis	1863
Immunofixation electrophoresis	956
Blood gas (ABG)	1303
Serology	
HIV	12,113
HBsAg	12,263
HCV	12,229

Training provided	
Trainees	No. trained
B.Sc. Biochemistry	6
B.Tech. Biotechnology	2
B.Sc. MLT/DMLT	21

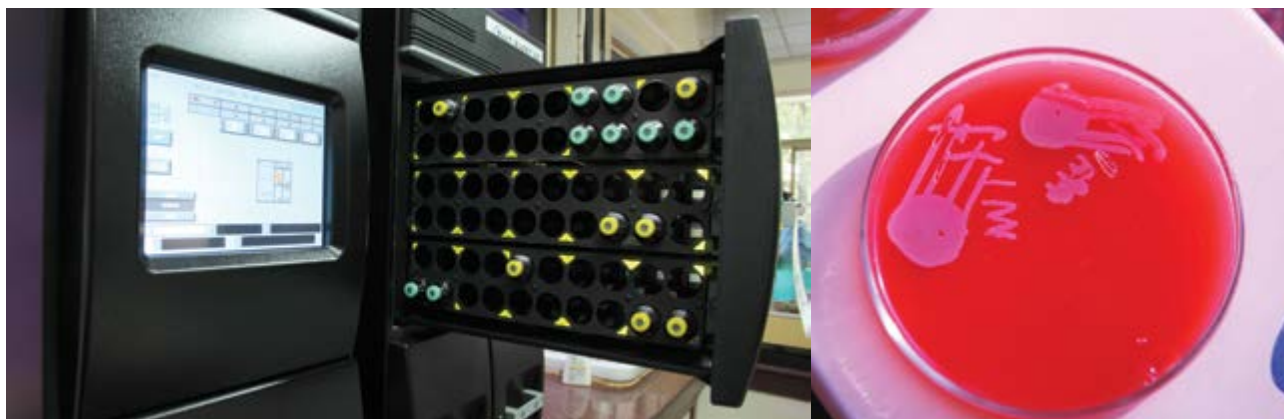


MICROBIOLOGY

Swapna R. Nath

Associate Professor & Head

Assistant Professor: Sagila SG



The division continued to provide services in Bacteriology, Mycology, Parasitology, Mycobacteriology and Serology. There was a steady increase in number of samples processed in the division and blood cultures continued to constitute the major work. The division also supported the laboratory needs of infection control programmes in RCC.

Training provided

- Classes for doctors and staff nurses on infection control
- One year Apprenticeship Training for M.Sc. Microbiology students
- Six months internship training for B.Sc. Medical Microbiology students
- Observership for B.Sc./M.Sc. (Microbiology) students

Investigations done	
Culture, Sensitivity & Other tests	No.
Blood	11,252
Exudate	1621
Urine	2837
Throat swab	2046
Sputum	1391
Aspirate	485
Stool	497
Surveillance culture	250
Cerebrospinal fluid	76
Acid-fast bacteria	100
Fungus	200
Widal test	8
Microscopy (Gram stain, AFB stain, KOH mount, etc.)	2450
Serology	3140
Total	26353

TRANSFUSION MEDICINE

Vijayalakshmi K

Associate Professor & Head

Assistant Professor: Amitha R

Resident Medical Officers: Rajesh R. Chandran (RMO on leave), Roshy G

The Division is a National AIDS Control Organization (NACO) recognized Regional Blood Transfusion Centre with an annual blood collection of over 30,000 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 conducted outreach blood collection camps and acts as mother blood bank to blood storage centre at SK Hospital, Thiruvananthapuram.

New equipment acquired

Haemonetics Cell Separator

Clinical services

Components	No.
Irradiation done	3097
Apheresis done	173
Single Donor Plasma	134
Cryoprecipitate	28
Packed Red Cells issued	15,066
Platelet concentrate issued	28,797
Fresh Frozen Plasma issued	5983

Academic activities

Conducted teaching programmes for postgraduate students of Pathology, postgraduate and undergraduate students of Laboratory Technology and Nursing specialities.



PALLIATIVE MEDICINE

Cherian M. Koshy

Additional Professor & Head

Resident Medical Officers: Prasanth CV, Manju Achamma Varghese



Patients referred to the Division were offered pain management and symptomatic care. The Division liaises with NGO's like 'Care Plus' to provide domiciliary care for registered patients. The division tested for safety, suitability and stability of liquid morphine in PET (Polyethylene Terephthalate) bottles. The division also imparted training to doctors practicing modern medicine, so that, they can apply for RMI (Registered Medical Institution) status, to purchase, stock and dispense oral morphine.

Academic activities

- Certificate course on Essentials of Palliative Care
- Training in palliative care for doctors and nurses and trainees from USA and Canada.

Patient services	
Cases	No.
New	4242
Review	12,963
Total	17,205

DENTAL CARE

Divya Raj

Assistant Professor



Dental wing is involved in the prophylactic dental care of all cancer patients in whom good oral health has prime importance prior to cancer treatment. Various activities of this division included pre and post treatment dental checkup, dental prophylaxis, management of trismus, management of osteoradionecrosis and post radiation dental care.

Clinical Services	
Cases	No.
Pre-treatment dental check up	1714
Post radiation care	3682
Management of Trismus	78
Dental Prophylaxis	290
BMT/Stem cell therapy consultation	42

NURSING SERVICES

Sreelekha R

Chief Nursing Officer

Nursing Superintendent: Flower Augustine

The Division rendered patient care in wards, day care services, OPDs, high dependency units, operation theatres and speciality units. The Division with a team of 276 registered nurses strives for patient safety, quality care and continuous improvement of nursing profession. The division also runs speciality clinics such as the Head and Neck Rehabilitation clinic, Lymphoedema clinic, Stoma clinic and Central Venous Access Device clinic.

Clinical services

Service	No.
Chemotherapy administration (OP)	73,344
Central Venous Access Device Clinic:	
Peripherally Inserted Central Catheter (PICC) insertion	1064
Total patient visits	26,903
Lymphoedema clinic (patient visits)	3888
Stoma clinic (patient visits)	3205
Head & Neck Rehabilitation clinic	
IP	2580
OP	5436

Academic activities

- National Workshop on 'Refining Skills in Oncology Nursing Research' was organized from 8-10 April 2015



- One day workshop on 'Management Skill for Nurses' was organized on 8 Aug 2015, in association with Oncology Nurses Association of India (Trivandrum Chapter)
- Two Oncology Nursing updates were conducted from 10 – 11 October 2015 and 31 October – 1 November 2015
- One day workshop on 'Basics of Cancer Chemotherapy for Nurses' was organized on 19 March 2016 in association with Oncology Nurses Association of India (Trivandrum Chapter)
- Short term training in palliative care, stoma care, chemotherapy, CVAD insertion and care, and bone marrow transplantation nursing care were given to nurses from other hospitals
- Clinical training was offered to 2171 B.Sc. Nursing, 172 M.Sc. Nursing and 23 students of Certificate Course in Nursing Administration

CLINICAL SERVICES & MEDICAL RECORDS

Chandrika D

Medical Records Officer

Assistant Administrative Officer
(Clinical Services): Sreekumar B

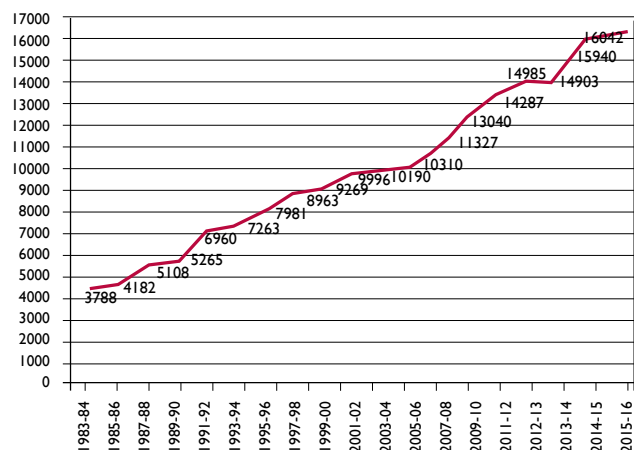
This Division is responsible for maintenance of medical records and management of follow-up appointments, co-ordination of inter-clinic referrals, arranging admissions and issuance of certificates.

Patient Statistics	
Item	No.
New cases	16,042
Review cases*	2,16,156
Total patient visits	2,32,199
Daily average	774
In-Patient admissions	11,237
In-Patient bed**	365
Total bed occupancy	80,889
Average bed occupancy	222
Bed occupancy rate	85.57
Average length of stay (days)	7 days
Hospital death	773
Telemedicine consultation	1597

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

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

Figure 1: New cases registered (1983-84 to 2015-16)



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	No. of patients	%
F	8512	53
M	4284	27
O	3246	20
Total	16,042	100

F – Minimum payment
M – Subsidised payment
O – Normal rate

Patients were further re-distributed after their category change and inclusion in various welfare schemes.

Re-distribution of patients under different categories		
Category	No.	%
F	2272	14.16
M	4284	26.71
O	2718	16.94
P	235	1.47
R	722	4.50
S	448	2.79
C	2896	18.05
N	270	1.68
K	2197	13.70
Total	16,042	100

F - Minimum payment

M - Subsidised payment

O - Normal rate

P - Private

R - Reimbursable

S - Cancer Suraksha Scheme

C - Comprehensive Health Insurance Scheme (CHIS Plus)

N - Rashtriya Arogya Nidhi (RAN) Scheme

K - Sukrutham Kerala

New cases registered (Speciality clinic wise)		
Clinic	No.	%
A	2375	14.8
B	2575	16.0
C	2628	16.4
D	2708	16.9
E	3702	23.1
F	645	4.0
G	1409	8.8
Total	16,042	100

A – Haematolymphoreticular; 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	No.	%
A	40666	18.81
B	32147	14.87
C	44502	20.59
D	31262	14.46
E	33002	15.27
F	14728	06.81
G	19849	09.18
Total	2,16,156	100

New cases (Age & Sex wise)						
Age Group	Male	%	Female	%	Total	%
0-14	376	4.81	306	3.72	682	4.25
15-24	284	3.63	283	3.44	567	3.54
25-34	344	4.41	625	7.59	969	6.05
35-44	686	8.79	1366	16.59	2052	12.79
45-54	1507	19.29	2093	25.42	3600	22.44
55-64	2280	29.19	1965	23.86	4245	26.40
65-74	1680	21.52	1141	13.86	2821	17.58
75+	652	8.36	454	5.52	1106	6.89
Total	7809	100	8233	100	16,042	100

New cases registered (Religion wise)						
Religion	Male	%	Female	%	Total	%
Hindu	4419	56.6	4958	60.2	9377	58.4
Muslim	1844	23.6	1663	20.2	3507	21.9
Christian	1546	19.8	1612	19.6	3158	19.7
Total	7809	100	8233	100	16,042	100

New cases registered (Gender wise)									
Clinic	A	B	C	D	E	F	G	Total	%
Male	1410	1853	220	977	2678	359	312	7809	48.68
Female	965	722	2408	1731	1024	286	1097	8233	51.32
Total	2375	2575	2628	2708	3702	645	1409	16,042	100

Referral System

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

Referred cases		
Referred from	No.	%
Teaching hospitals	3127	19.49
District/General hospitals	550	3.43
Other Government hospitals	2293	14.29
VSSC/ECHS/ESI/CGHS/ Railway hospitals	461	2.87
ECDC and peripheral centres	18	0.11
Other Cancer Centres	98	0.61
Private doctors	900	5.61
Private hospitals	7577	47.23
International (Maldives)	225	1.40
Self/RCC	793	4.95
Total	16,042	100

Referred cases (Geographical area wise)		
Kerala	No.	%
Thiruvananthapuram	3755	23.40
Kollam	2738	17.07
Pathanamthitta	857	5.34
Alappuzha	952	5.93
Kottayam	554	3.45
Idukki	280	1.75
Ernakulam	636	3.97
Thrissur	903	5.63
Palakkad	974	6.07
Kozhikode	457	2.85
Malappuram	1138	7.09
Wayanad	102	0.64
Kannur	308	1.92
Kasargod	205	1.28
Other States		
Tamil Nadu	1740	10.85
Karnataka	12	0.08
Lakshadweep	13	0.08
Others	193	1.20
International		
Maldives	225	1.40
Total	16,042	100

Training provided

- Seven candidates are undergoing training in Medical Documentation Training Programme, started in September 2015.
- Training in medical records and patients services was given to Master of Applied Science & Medical Documentation and MA/MSW students from various universities.

COMMUNITY ONCOLOGY

Ramani S. Wesley
Professor & Head

Additional Professor: Gigi Thomas
Assistant Professor: Jayakrishnan R

The two thrust areas of the National Cancer Control Programme are primary and secondary prevention of cancers. 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, cancer awareness/education programmes and cancer detection camps on a regular basis.

Cancer Control Activities

Human Resource Development

- **International School of Colposcopy:** 16 doctors were given one-week hands on training and 30 BSc (MLT) students were given one day orientation programme on VIA, VILI and Colposcopy.
- **Trainer-Trainee Programmes:** 21 trainer-trainee programmes were conducted for health care providers which included doctors, post graduate medical students and paramedical staff from governmental and non-governmental institutions. 22 programmes were conducted for community volunteers from organizations such as the Kudumbashree and ASHA, public health training students, teachers and school students from various districts of the State.

Trainer-Trainee programmes

Categories of Trainees	No. of programmes	No. trained
Doctors	14	381
Nurses and paramedicals	7	184
Community Volunteers (NSS, ASHA, Kudumbashree volunteers)	15	620
NCC volunteers	7	750
Total	43	1935

Early Cancer Detection

During the period under report, 5940 persons attended the Early Cancer Detection Clinic of the Division. Oral biopsy was done for 61 patients (53 punch and 8 excision biopsies). The details of cancers and precancers detected and the activities of the colposcopy clinic and oral dysplasia clinic are given in the following tables.

Cancers and Pre-cancers detected

(No. screened: 5940)

Sites	Cancers	Precancers
Oral	202	281
Breast	127	854
Cervix	35	208
Others	39	---
Total	403	1343

Colposcopy clinic

Procedures done	No.
Colposcopy	2610
Colpodirected biopsy	52
Visual inspection using acetic acid and Lugol's iodine	3112
Pap smear	1028

Oral dysplasia clinic

Cases detected	No.
Leukoplakia	85
Oral submucous fibrosis	58
Benign lesions/conditions	138
Total	281

Cancer Outreach Programmes

102 cancer detection camps were conducted in various parts of the State in which 9478 people underwent screening. This included 24 cancer detection camps conducted among women residing in the Mangalapuram Breast Cancer Screening project area and seven camps in Idukki district.

Cancers & Pre-cancers detected in cancer detection camps (No. screened: 9478)		
Site	Cancer	Pre-cancers & benign lesions
Oral	13	257
Breast	11	79
Cervix	--	28
Others	6	16
Total	30	380

Apart from these, 58 cancer awareness programmes were conducted, which were attended by 6000 people. These programmes were arranged mainly for high school/higher secondary school students and teachers, office staffs, lay public and vulnerable groups like the tribal population, fishermen community, and rural population.

Tobacco Cessation Clinic (TCC)

135 tobacco users attended the Clinic for tobacco cessation assistance. Among the tobacco habitués, 69% were smokers, 20% were tobacco chewers and 11% had both the habits. They were given behavioral counseling and for patients with severe nicotine dependence, nicotine replacement therapy was also given.

Other activities

School based intervention programme against tobacco and alcohol consumption in high school/higher secondary schools of rural Kerala

The objective of this programme was to understand the patterns of tobacco and alcohol use among students in the rural areas of Thiruvananthapuram district. It would provide an estimate on the prevalence and patterns of tobacco and alcohol use among adolescent school students.

Utilising Kudumbashree volunteers for cancer prevention and control - the 'Swasthyam' project

RCC took the leadership role to train women volunteers of the Kudumbashree Mission in cancer prevention project initiated in Pathanamthitta district with the objective to sensitise households of Pathanamthitta district. As part of this, two general sensitization cum motivation programmes and five trainer-trainee programmes were conducted by RCC to train 164 resource persons in cancer prevention activities. One of the main objectives was to motivate eligible subjects to undergo screening for common cancers or advice them to undergo diagnostic evaluation at hospitals, if any warning signals of cancer were present.

World No Tobacco Day (31 May 2015): World No Tobacco Day was observed in collaboration with Sree Chitra Tirunal Institute for Medical Sciences and Technology, Directorate of Health Services, Tobacco Free Kerala, Kerala Voluntary Health Services, ADIC-India and the Regional Cancer Association. The programme was inaugurated by Prof. M.K.C. Nair, Vice Chancellor, Kerala University of Health Sciences, and had a panel discussion on 'Multi-sectoral interventions to counter illicit tobacco trade'.

National Cancer Awareness Day (7 November 2015):

The day observed in collaboration with Regional Cancer Association was inaugurated by Dr. P.K. Radhakrishnan, Vice Chancellor, University of Kerala. A seminar was organized to empower National Service Scheme volunteers of University of Kerala on oral cancer prevention and control.

CANCER RESEARCH

Remani P (retired on 31 August 2015)

Additional Professor & Head

Kannan S (from 1 September 2015)

Professor & Head

Additional Professor: Raveendran Pillai K

Associate Professors: Sujathan K, Lakshmi S, 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

mainly focuses on interpreting the molecular mechanisms behind cancer development and progression as well as identifying molecular signatures capable of predicting disease prognosis. One such study focuses on the role of NF κ B and STAT3 genes in primary and metastatic oral cancer cell lines. A new study has been initiated to validate the microRNA signature for oral carcinoma in established oral cancer cell lines to decipher the biological significance of the altered microRNAs. In addition to studies on oral cancer, a study to profile the microRNA expression pattern in uterine cervical cancer in relation to HPV infection status is also going on.

The Laboratory of Molecular Cytopathology and Proteomics

mainly focuses on developing cost effective screening methods for cervical and lung cancers. Whole proteome profiling and

Raman spectroscopy are currently employed to develop a diagnostic marker for cervical cancers. The sensitivity of the sputum processing technique developed is being evaluated and the significance of immunocytochemistry for the differential diagnosis of lung adenocarcinoma in sputum is also being carried out. Beside these, the role of Galectin-3 in EMT associated gene expression and stem cell regulation in triple negative breast cancers has also been initiated.

The Laboratory of Molecular Medicine has been undertaking studies on the elucidation of cell signaling pathways in the development of breast cancer and the molecular mechanisms of multidrug resistance in ovarian cancer. Another area of focus is developing primary cell lines of breast cancers and to study the effect of the plant product, anacardic acid, in development and progression of tumors. A new study is initiated to analyze the therapeutic potential of α - mangostin and Garcinone E from Mangosteen against oral cancer metastasis.



The Laboratory of Cytogenetics and Molecular Diagnosis is mainly concentrating on leukaemia research, chromosomal abnormalities in various leukaemia and searching for predictive genetic markers to detect the risk group based prognostic stratification of haematological malignancies. Identification of factors which cause resistance in CML patients treated with Imatinib Mesylate is also being carried out. Cytogenetic and molecular studies in inhabitants of high natural background radiation areas of Karunagappally Taluk, Kerala is also progressing.

The Laboratory of Biopharmaceuticals & Nanomedicine is mainly focusing on new drug discovery, novel drug delivery systems and innovative cost effective technology creation. The basic research programme at the laboratory has resulted in some exciting nanoconjugates based on plant polysaccharides. Different nanoparticles and scaffolds were prepared and are being evaluated for their potential as antitumor and imaging agents. Iron and silver conjugated metallic nanoconjugates were shown to be promising substrates for Magnetic Resonance Imaging (MRI) and Surface Enhanced Raman Spectroscopy (SERS) respectively.

The Laboratory of Immunopharmacology and Experimental Therapeutics aims to explore the possibility of using natural products to mitigate the harmful side effects of radiation. A study has been initiated in this direction to find out the protective effect of *Biophytum sensitivum* and Amentoflavone on radiation induced esophagitis. The laboratory will also focus on the protective effect of the natural products on the innate immune cells during radiation induced lung injury (RILI).

Patent filed

Dr. K. Sujathan. 'A Method and System for Automated Screening of Cervical Cancer'. Indian Complete Patent Application No.4098/CHE/2015. Filed on 6 August 2015.

New Equipments Acquired

Flow Cytometry (FACS JAZZ)	- 1
Bench Top Lyophilizer	- 1
EPOCH Microplate Reader	- 1
Refrigerated High Speed Centrifuge	- 1
MUSE Cell Analyzer System	- 1

Diagnostic services provided	
Services	No.
Karyotype analysis	
Bone marrow samples	1167
Peripheral blood samples	50
Quantitative RT-PCR for bcr-abl	747
Qualitative RT-PCR for bcr-abl & pml-rara	764
Fluorescent In Situ Hybridization	600

Academic activities

- Five research scholars were awarded PhD.
- Training was provided for:

MD/MS/DM students (Dissertation work)	39
M.Sc. (Biotech)/Life Science students (3 months project work)	57
B.Sc. (MLT) students	220

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.	Christo Rajan	Study of the significance of miRNA expression pattern in oral carcinoma /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.	Veena VS	Study of biomarkers for lung cancer in sputum/ Bharathiar University	Dr. K. Sujathan
6.	Nimi GK	Study of galectins in triple negative breast cancers/M.S. University	Dr. K. Sujathan
7.	Saritha VN	Proteome analysis in squamous cell carcinoma and its precursor lesions of cervix./ M.S. University	Dr. K. Sujathan
8.	Rajesh SV	Study of cell cycle regulatory proteins in thyroid nodules./ M.S. University	Dr. K. Sujathan
9.	Suresh Kumar V	Detection of nucleophosmin 1 gene mutations in AML patients and its impact on treatment/ University of Kerala.	Dr. S. Hariharan
10.	Aswathy CG	A study of gene expression profile in inhabitants of high background radiation of Karunagappally, Kerala, India/Mahatma Gandhi University	Dr. S. Hariharan
11.	Krishnachandran R	Blastic transformation of chronic myelogenous leukemia: Cytogenetic and molecular mechanisms orchestrating the disease progression/ University of Kerala	Dr. S. Hariharan
12.	Preethi G. Nath	Identification of novel prognostic markers in Pediatric Leukemia/ University of Kerala	Dr. S. Hariharan
13.	Akhila Raj	Molecular studies on genes responsible for drug resistance: A study on <i>de novo</i> and relapsed acute myeloid leukaemia patients/ University of Kerala	Dr. S. Hariharan
14.	Sheeja Varghese	Studies on the molecular mechanisms of antitumour/ immunomodulatory polysaccharide from <i>Mangifera indica</i> / University of Kerala.	Dr.T.T. Sreelekha
15.	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
16.	Unnikrishnan BS	Application of polysaccharide metal nanoconjugates in cancer detection and therapy/ University of Kerala	Dr.TT Sreelekha
17.	Preethi GU	Chemotherapeutics loaded polysaccharide scaffold as novel tool to fight against cancer/ University of Kerala	Dr.TT Sreelekha
18.	Shiji R	Galactomannan polysaccharide nano-conjugates for imaging and targeted cancer therapy/ University of Kerala	Dr.TT Sreelekha

Ongoing Post doctoral research programme

Sl. No.	Fellow	Title of the Study	Fellowship
I	Sheeja K	Analysis of therapeutic potential of α - mangostin and Garcinone E from Mangosteen against oral cancer metastasis.	DBT BioCare Women Scientist Programme

CANCER EPIDEMIOLOGY & BIOSTATISTICS

Aleyamma Mathew

Professor & Head

Associate Professors: Jayalekshmi P, Latha PT,

Preethi Sara George

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

Maintenance and publication of hospital and population based cancer registries (HBCR & PBCR), conducting cancer surveillance and screening programmes, cancer epidemiologic studies, providing cancer awareness classes to the community and statistical consultancy to RCC faculty and students, teaching bio-statistics to RCC students, providing training in cancer registry operations and conducting doctoral programmes in epidemiology & bio-statistics are the major activities of the division. The division is the first research centre for Bio-statistics in Kerala and currently five students are pursuing PhD.

Hospital Based Cancer Registry (HBCR)

HBCR of RCC, Thiruvananthapuram is in its 34th year under the network of National Cancer Registry Programme (NCRP) of Indian Council of Medical Research (ICMR), Govt. of India. During the period under report, out of the total of 16,042 new cases registered, 14,185 (88.4%) were invasive cancers. The division also published Hospital-Based Cancer Registry Report for the year 2012.

Population Based Cancer Registry (PBCR), Thiruvananthapuram

PBCR, Thiruvananthapuram covering the entire district (3.3 million population) is in its 5th year under the network of NCRP of ICMR in 2016. First results (2012-2014) of PBCR,

Thiruvananthapuram district were published. A remarkable finding was that Thiruvananthapuram district has the highest crude cancer incidence rate (172.2 and 167.1 per 100,000 respectively for males and females for the year 2014) in India (except Aizwal district, North East region).

Cancer surveillance programmes

Surveillance programme on cancers of the breast (n=9130), uterine cervix (n=2578), and head and neck (n=14,063) patients reporting to the RCC, is in its 10th year in collaboration with NCRP. This database has been extensively used for the various clinical research programmes as well as for the post-graduate thesis work.

Cancer screening programmes

Ten cancer screening training programmes were organized for PHC doctors, Health Inspectors, JPHNs, JHIs and ASHA workers, and were attended by 1256 persons. The division also conducted 84 cancer detection programmes in various parts of Thiruvananthapuram, Kollam, Pathanamthitta, Kottayam and Idukki districts, in which 9667 persons were screened. Pap smear was collected from 1241 women.

Cancers & pre-cancers detected in cancer detection camps	
No. of camps	84
No. screened	9667
Oral cancer	10
Breast cancer	13
Cervix cancer	3
Cervical pre-cancer	21

Five cancer epidemiologic studies, such as (i) Time-trend analysis of cancer incidence in Thiruvananthapuram (2005-2014), (ii) Assessment of cancer incidence in Thiruvananthapuram Taluk using geographic information

system (GIS), (iii) Association between dietary fat intake and prostate cancer: a meta-analysis, (iv) Association between red meat intake and colorectal cancer: a meta-analysis, and (v) Association between diet and bladder cancer: principal component analysis were conducted.

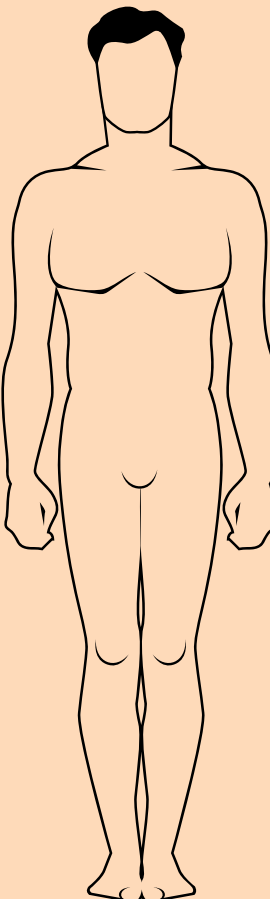
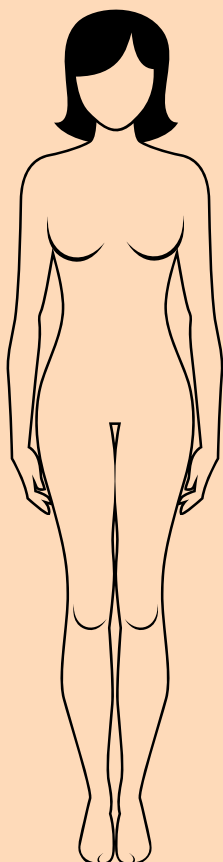
Ongoing Doctoral Programmes			
Sl. No.	Research Scholar	Title of Study/University	Guide
1	Manju L	Risk estimates of bladder cancer: multiple logistic regression model/University of Kerala	Dr.Aleyamma Mathew
2	Grata Ildaphonsa	Risk factors of kidney cancer: a matched case-control study/ University of Kerala	Dr.Aleyamma Mathew
3	Sona PS	Performance status and quality of life of ovarian cancer patients/University of Kerala	Dr.Aleyamma Mathew
4	Joseph Jennings MM	Quality of life of patients with cancer of tongue undergoing treatment modalities/University of Kerala	Dr.Aleyamma Mathew
5	Devi Vijaya A	Statistical prediction of breast cancer patient survival using artificial neural network models- undergoing course work/ Mahatma Gandhi University	Dr.Aleyamma Mathew
6	Kalavathy MC	Evaluation of Pap smear screening and HPV pattern among women with ASCUS (Atypical Squamous Cells of Undetermined Significance) in Trivandrum, South Kerala/ Mahatma Gandhi University	Dr.Aleyamma Mathew
7	Sreelekha KR	Bayesian Modelling and Posterior Inference for Breast Cancer survival data in Kerala/Mahatma Gandhi University	Dr. Preethi Sara George

Site-wise distribution of patient registration by gender: HBCR, Regional Cancer Centre, Thiruvananthapuram (2015-2016)							
ICD-10	Site	Male		Female		Total	
		No.	%	No.	%	No.	%
C00	Lip	17	0.2	12	0.2	29	0.2
C01	Base of tongue	12	0.2	3	0.0	15	0.1
C02	Tongue	411	5.9	174	2.4	585	4.1
C03	Gum	108	1.5	76	1.1	184	1.3
C04	Floor of mouth	71	1.0	9	0.1	80	0.6
C05	Palate	55	0.8	21	0.3	76	0.5
C06	Other mouth	267	3.8	125	1.7	392	2.8
C07	Parotid gland	35	0.5	27	0.4	62	0.4
C08	Salivary gland	12	0.2	13	0.2	25	0.2
C09	Tonsil	32	0.5	4	0.1	36	0.3
C10	Oropharynx	118	1.7	7	0.1	125	0.9

C11	Nasopharynx	49	0.7	25	0.3	74	0.5
C12	Pyiform sinus	53	0.8	2	0.0	55	0.4
C13	Hypopharynx	71	1.0	38	0.5	109	0.8
C14	Pharynx unspecified	4	0.1	1	0.0	5	0.0
C15	Oesophagus	257	3.7	92	1.3	349	2.5
C16	Stomach	345	4.9	125	1.7	470	3.3
C17	Small intestine	9	0.1	10	0.1	19	0.1
C18	Colon	178	2.5	127	1.8	305	2.2
C19	Rectosigmoid colon	50	0.7	28	0.4	78	0.5
C20	Rectum	230	3.3	150	2.1	380	2.7
C21	Anus & anal canal	16	0.2	12	0.2	28	0.2
C22	Liver	208	3.0	57	0.8	265	1.9
C23	Gall bladder	23	0.3	29	0.4	52	0.4
C24	Other biliary tract	38	0.5	29	0.4	67	0.5
C25	Pancreas	96	1.4	68	0.9	164	1.2
C30	Nasal cavity	15	0.2	7	0.1	22	0.2
C31	Accessory sinus	22	0.3	7	0.1	29	0.2
C32	Larynx	289	4.1	13	0.2	302	2.1
C33	Trachea	2	0.0	1	0.0	3	0.0
C34	Lung	1014	14.4	214	3.0	1228	8.7
C37	Thymus	1	0.0	3	0.0	4	0.0
C38	Heart & mediastinum	27	0.4	4	0.1	31	0.2
C40	Bone of limbs	53	0.8	25	0.3	78	0.5
C41	Other bone	25	0.4	22	0.3	47	0.3
C43	Skin melanoma	39	0.6	35	0.5	74	0.5
C44	Skin other	61	0.9	63	0.9	124	0.9
C47	Peripheral nerves	10	0.1	9	0.1	19	0.1
C48	Retroperitoneum	1	0.0	6	0.1	7	0.0
C49	Connective tissue	111	1.6	83	1.2	194	1.4
C50	Breast	25	0.4	2054	28.7	2079	14.7
C51	Vulva	0	0.0	11	0.2	11	0.1
C52	Vagina	0	0.0	13	0.2	13	0.1
C53	Cervix uteri	0	0.0	481	6.7	481	3.4
C54	Corpus uteri	0	0.0	296	4.1	296	2.1
C55	Uterus, nos	0	0.0	30	0.4	30	0.2
C56	Ovary	0	0.0	371	5.2	371	2.6
C57	Other female genital organs	0	0.0	9	0.1	9	0.1
C58	Placenta	0	0.0	3	0.0	3	0.0
C60	Penis	40	0.6	0	0.0	40	0.3
C61	Prostate	313	4.5	0	0.0	313	2.2
C62	Testis	34	0.5	0	0.0	34	0.2
C63	Other genital organs	3	0.0	0	0.0	3	0.0

C64	Kidney	123	1.8	42	0.6	165	1.2
C65	Renal pelvis	4	0.1	0	0.0	4	0.0
C66	Ureter	3	0.0	0	0.0	3	0.0
C67	Urinary bladder	160	2.3	21	0.3	181	1.3
C69	Eye	12	0.2	9	0.1	21	0.1
C71	Brain	182	2.6	115	1.6	297	2.1
C72	Spinal cord	3	0.0	1	0.0	4	0.0
C73	Thyroid gland	315	4.5	1059	14.8	1374	9.7
C74	Adrenal gland	16	0.2	19	0.3	35	0.2
C75	Other endocrine gland	0	0.0	1	0.0	1	0.0
C76	Ill defined sites	0	0.0	1	0.0	1	0.0
C77	Secondary lymph node	62	0.9	20	0.3	82	0.6
C78	Secondary resp.& digestive	35	0.5	27	0.4	62	0.4
C79	Secondary Other sites	28	0.4	11	0.2	39	0.3
C80	Primary unknown	40	0.6	19	0.3	59	0.4
C81	Hodgkin's disease	95	1.4	61	0.9	156	1.1
C82	Follicular NHL	75	1.1	33	0.5	108	0.8
C83	Diffuse NHL	190	2.7	109	1.5	299	2.1
C84	T-cell lymphoma	33	0.5	25	0.3	58	0.4
C85	Other NHL	71	1.0	38	0.5	109	0.8
C90	Multiple myeloma	170	2.4	125	1.7	295	2.1
C91	Leukemia, lymphoid	226	3.2	131	1.8	357	2.5
C92	Leukemia, myeloid	197	2.8	167	2.3	364	2.6
C93	Leukemia, monocytic	48	0.7	53	0.7	101	0.7
C94	Other specified leukaemia	2	0.0	4	0.1	6	0.0
C95	Leukemia, unspecified	68	1.0	40	0.6	108	0.8
C96	Other lymphoid neoplasm	17	0.2	8	0.1	25	0.2
	Total (Invasive)	7023	100.0	7162	100.0	14,185	100.0
	In-situ	6	0.8	52	4.9	58	3.1
	Borderline malignancy	100	12.8	149	13.9	249	13.4
	Benign tumours	71	9.1	204	19.0	275	14.8
	Non-neoplastic (pre-malignant conditions & others)	257	32.8	368	34.3	625	33.7
	Suspicious of malignancy	36	4.6	34	3.2	70	3.8
	Not yet diagnosed	316	40.0	264	24.7	578	31.2
	Total (Non-invasive)	786	100.0	1071	100.0	1857	100.0
	Total no. of patients	7809	100.0	8233	100.0	16,042	100.0

**System-wise (%) distribution of invasive cancers (by Gender):
HBCR, Regional Cancer Centre, Thiruvananthapuram (2015-2016)**

	Male N = 7023	System	Female N = 7162	
	185 (2.6)	Brain & Nervous System	116 (1.6)	
	1315 (18.9)	Oral Cavity & Pharynx	537 (7.4)	
	315 (4.5)	Thyroid	1059 (14.8)	
	1305 (18.5)	Respiratory System	228 (3.2)	
	25 (0.4)	Breast	2054 (28.7)	
	602 (8.6)	Oesophagus & Stomach	217 (3.0)	
	848 (12.0)	Other Digestive Organs	510 (7.1)	
	290 (4.2)	Urinary Tract	63 (0.9)	
	390 (5.6)	Reproductive System	1214 (16.9)	
	300 (4.4)	Bone, Conn. tissue & Skin	243 (3.4)	
	711 (10.1)	Leukaemia & Myeloma	520 (7.2)	
	481 (6.9)	Lymphoma	274 (3.8)	
	258 (3.7)	All Others	128 (1.9)	

Population Based Cancer Registry, Thiruvananthapuram District (2014): Number, Crude Incidence Rate (CR), Annual Age-adjusted Incidence Rate (AAR) per 100,000 persons of leading cancer sites

ICD-10 code	Site	Male			Female		
		#	CR	AAR	#	CR	AAR
C00-C06	Oral cavity	286	18.0	14.1	120	6.9	5.0
C01-02	Tongue	149	9.4	7.4	47	2.7	2.0
C03-06	Mouth	132	8.3	6.5	65	3.7	2.7
C09-14	Pharynx	85	5.4	4.2	28	1.6	1.2
C15	Oesophagus	89	5.6	4.4	17	1.0	0.8
C16	Stomach	107	6.7	5.3	46	2.6	2.0
C18	Colon	100	6.3	5.0	80	4.6	3.6
C19-21	Rectum	118	7.4	5.9	92	5.3	3.9
C22	Liver	108	6.8	5.4	32	1.8	1.5
C25	Pancreas	62	3.9	3.0	42	2.4	1.7
C32	Larynx	115	7.3	5.7	11	0.6	0.5
C33-34	Lung	371	23.4	18.4	104	6.0	4.5
C40-41,49	Bone & Conn. tissue	50	3.2	2.8	39	2.2	2.0
C43-44	Skin	67	4.2	3.3	57	3.3	2.5
C50	Breast	14	0.9	0.7	830	47.7	36.1
C53	Cervix Uteri	0	0.0	0.0	172	9.9	7.2
C54	Corpus Uteri	0	0.0	0.0	120	6.9	5.2
C56	Ovary	0	0.0	0.0	158	9.1	7.0
C61	Prostate	206	13.0	10.3	0	0	0.0
C64-66,68	Kidney etc.	59	3.7	3.0	19	1.1	0.9
C67	Urinary Bladder	108	6.8	5.4	29	1.7	1.3
C70-72	Brain & CNS	50	3.2	2.7	46	2.6	2.5
C73	Thyroid	68	4.3	3.7	311	17.9	14.5
C81-85,96	Lymphoma	130	8.2	6.8	105	6.0	5.0
C90	Multiple Myeloma	56	3.5	2.8	43	2.5	1.9
C91-95	Leukaemia	95	6.0	5.9	67	3.9	3.7
C00-96	All Sites	2731	172.2	138.3	2905	167.1	128.8

LIBRARY AND INFORMATION SERVICES

Vishnu V

Librarian cum Information Officer

The Division carried out a wide range of services to support the clinical, academic and administrative requirements of the Centre.

Collection development

The Division continued its subscription to electronic journals through various publishing platforms such as ScienceDirect, Wiley online library, Oxford University Press, Springer, Informa Health, ASCO, AACR, Nature Publishing and AAAS. Arrangements were made for the off campus access too. Reprint procurement arrangement with DELNET fulfilled the user need for scholarly articles published in non subscribed journals.

Access to *UpToDate Anywhere*

In order to increase the usage and to make use of the improved features of UpToDate, off campus/remote access through mobile phones and tablets was enabled by subscribing to the *UpToDate Anywhere* version.

Access to E-resources through National Cancer Grid

In addition to the subscribed journals, the division enabled access to 53 E-journals, 72 E-books and other multimedia resources by forming part of the National Cancer Grid programme of Govt. of India.

Library Intranet

It is possible to search and retrieve the details of books, RCC publications, reprints, journal holdings, list of CD/DVD Roms and e-books through various links provided in the library page. Link provided to each journal enables direct access to full text of articles.



Information sources

Document type	Collection as on 31.03.2016
Books, Monographs and Back Volumes	12,994
Current Journals	138
E-Books	130
E-Journals	131
Reprints	7274

Support services

The Division handled all the audio-visual and reprographic requirements of the Centre. Compilation and edition works related to the publication of Centre's annual report (2014-15) were fulfilled.

Training provided

Internship training was provided to two Master of Library and Information Science students from Department of Library and Information Science, University of Kerala.

INFORMATION SYSTEMS

Sanjeev R

Officer in Charge

The main responsibilities 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.



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.

Major activities undertaken during the reporting period:

- Network infrastructure work and Data Centre work for the new 10 storied building, Networking backbone cabling completed for connecting the disaster recovery site
- Oracle Database Appliance installation and commissioning
- Standby database for failover and redundancy was installed and tested

- Enterprise level unified threat management device was configured and commissioned
- Network cabling infrastructure for the renovated operation theatre area was installed and commissioned
- Five new network racks with passive components were installed and configured, provided cooling units for two racks

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 requirements of the users.

EARLY CANCER DETECTION CENTRE (ECDC)

Ernakulam

Latha A

Cytopathologist

Early Cancer Detection Centre, Kaloor, Ernakulam primarily aims at screening and early diagnosis of cancer cases through cervical smear examination, oral scrape smear examination, fine needle aspiration cytology, colposcopy and fluid cytology. In addition to the daily clinics of about 60 patients per day, ECDC conducted cancer detection camps in the rural and urban areas of Ernakulam and neighbouring districts, cancer awareness classes, seminars and health talks. The monthly follow up clinic conducted on every 3rd Saturday was attended by 888 patients.

Screening services	
Services	No.
Awareness classes	52
Cancer detection camps	109
Persons screened	22,608
Cancers detected	341
Pre-cancers detected	1187

Clinical activities			
Tasks	ECDC	Camp	Total
Cervical smear	2879	4757	7636
Oral smear	146	41	187
Fine Needle Aspiration Cytology	3106	968	4074
Sputum cytology	31	---	31
Fluid cytology	4	---	4

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 and Thrissur districts with assistance from governmental and non-governmental organizations. Programmes for the early detection of cervical cancer and breast cancers were conducted among 2512 women. Follow up clinics were conducted every three months and 229 patients attended.

Screening services	
Services	No.
Awareness classes	74
Cancer detection camps	65
Persons screened	11,562
Cancers detected	40
Pre-cancers detected	253

Clinical activities			
Tasks	ECDC	Camp	Total
Cervical smear	604	3279	3883
Oral smear	21	43	64
Fine Needle Aspiration Cytology	31	133	164
Sputum cytology	5	---	5
Nipple discharge	10	32	42
Fluid cytology	2	---	2

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 Karunagapally Taluk, Kollam district of Kerala. NBRR carries out radiation epidemiologic studies on cancer and non-cancerous diseases, dosimetric studies and cytogenetic studies. Cancer Care Centre attached with this registry renders cancer control activities and supportive care of cancer patients with the grant received from Health and Family Welfare Department, Govt. of Kerala and funds from various panchayats in Kollam District.

Patient services		
Services	No.	Persons attended
Cancer awareness classes & palliative care training programmes	8	1000
Review clinics	6	472
Pain and palliative care clinic	Daily	7619
Cancer detection camps	84	5355
Pap smear screening	2657	---
Other cytology investigations	236	---
Cancer cases detected	54	---

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 tumors where intensive chemotherapy is indicated. Majority of the patients attending OPD were for chemotherapy. In the BMT unit, during the above period, autologous bone marrow transplantation following high dose chemotherapy was performed in 26 patients. Allogenic bone marrow transplantation for leukaemias was performed in 4 patients. Clinical training was given to postgraduate students of Radiation Oncology, Surgical Oncology and Medical Oncology of RCC and other Medical Colleges.

Clinical Services/Procedures Offered

Patients consulted	
Patients	No.
New cases	2375
Review cases	40,666
Total patient visits	43,041

Specialised services			
High Dose chemotherapy	Autologous BMT	Allogenic BMT	Chemotherapy
2000	26	4	20000

Major surgical procedures : 293

Radiation treatments : 617

Observers/Visitors : 34

'B' CLINIC (HEAD & NECK)



'B' clinic is a multidisciplinary clinic comprising of Radiation Oncologists and Surgical Oncologists providing comprehensive evaluation, treatment and post treatment care for patients with head and neck malignancies. The team also comprises of trained nurses who provide advice and rehabilitation services for patients undergoing complex surgeries, reconstruction and radiotherapy. The services included state-of-the-art radiotherapy including 3DCRT, IMRT, and remote after loading HDR brachytherapy, cranio-facial resections, microvascular reconstructions and endoscopic skull base surgeries. Brachytherapy services provided include interstitial implantation, surface mould etc. There is also a closely associated dental division which provides pre and post radiotherapy dental care for patients. Clinical training was given to postgraduate students of Radiation Oncology, Surgical Oncology, ENT, Oral and Maxillofacial Surgery, General Surgery and Oral Medicine from various institutions.

Clinical Services/Procedures Offered

Patients consulted	
Patients	No.
New cases	2575
Review cases	32,147
Total	34,722

Radiotherapy			
Radical			Palliative
3D CRT	IMRT	2D Planning	
1	118	1080	250

Surgical Procedures				
Oral cancers	Laryngo-pharyngeal	Salivary glands	Sino-nasal cancers	Others
713	59	79	13	78

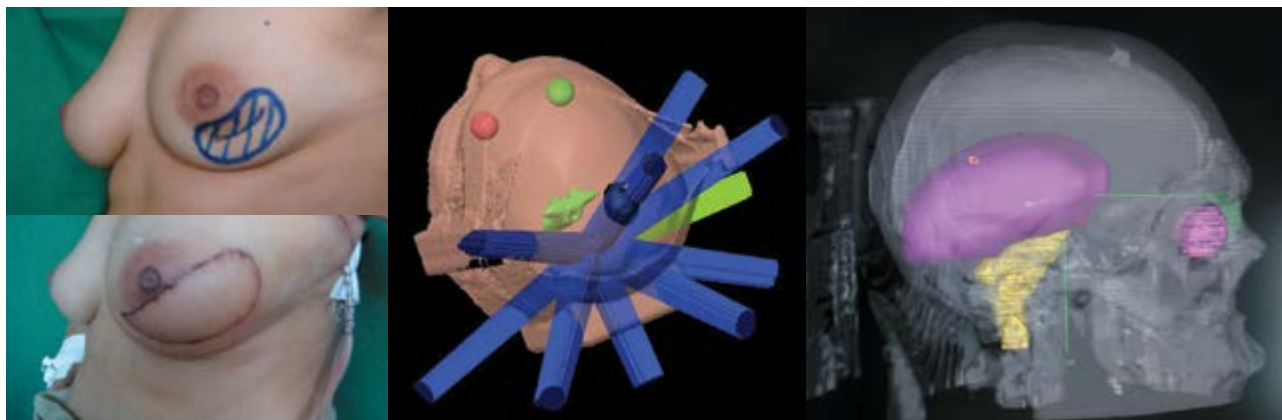
Chemotherapy

Concurrent chemo-radiotherapy	200
Neo-adjuvant chemotherapy	225

Observers/Trainees: 72 post graduate trainees in General Surgery, Radiation Oncology, ENT and Oral and Maxillofacial Surgery from various institutions in India.

'C' CLINIC

(BREAST & CENTRAL NERVOUS SYSTEM)



'C' clinic deals with the treatment of cancers arising in the breast and central nervous system by offering surgery, radiotherapy, chemotherapy, targeted therapy and endocrine therapy services. The clinic also caters to paediatric patients who need radiotherapy for central nervous system tumours. The services provided include 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. Non-surgical treatments are provided for both benign and malignant brain tumors as well as arteriovenous malformations. Counseling regarding treatment side-effects and sequelae are imparted by well-trained nurses. The month of October was observed as breast cancer awareness month and 455 women underwent breast screening. Clinical training was given to postgraduate students of Radiation Oncology, Surgical Oncology and Medical Oncology from within RCC and other Medical Colleges.

Clinical Services/Procedures Offered

Patients consulted	
Patients	No.
New cases	2628
Review cases	44,502
Total	47,130

Radiotherapy

Radical				Palliative
Conformal	Conventional	IMRT	Stereotactic Radiosurgery	
705	144	33	47	240

Surgical Procedures

Mastectomy	Breast Conservation & Oncoplastic procedures	Others
824	261	127

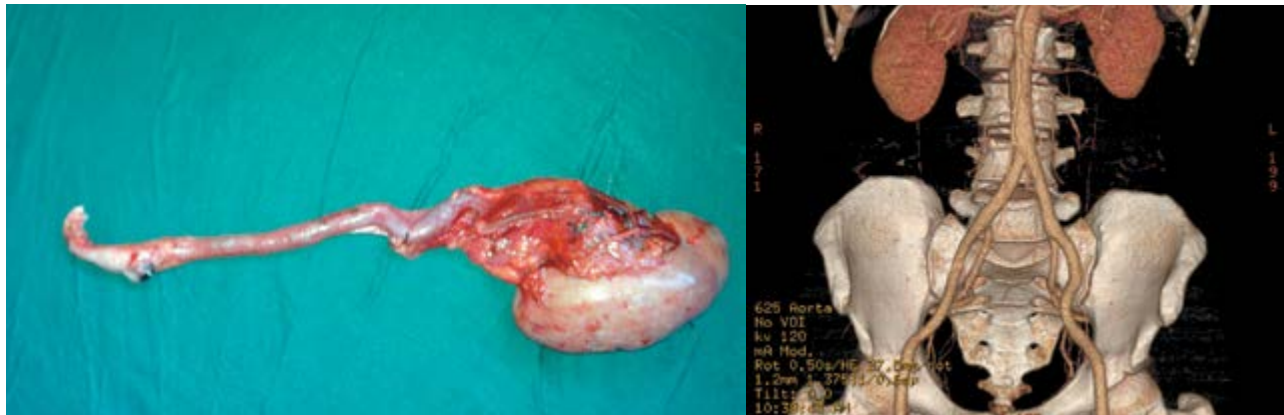
Chemotherapy: Most of the chemotherapy was delivered on an out-patient basis and over 15,000 patients received chemotherapy during the report period.

Visitor

Dr. Oomen Koshy, Consultant Plastic & Reconstructive Surgeon, Merseyside Regional Burns & Plastic Surgery Unit, Whiston Hospital, Liverpool, UK to demonstrate microvascular reconstruction of the breast.

'D' CLINIC

(GYNAEC, GENITOURINARY & OTHERS)



'D' clinic provides care for patients with gynaecologic, urologic, dermatologic cancer and cancers of unknown primary origin. Patients are treated with precision radiotherapy (IGRT, IMRT), surgery, chemotherapy, targeted and hormonal therapies. Surgical oncology services include complex cytoreductive surgeries for ovarian cancers and radical surgeries for cervical cancer and minimally invasive surgeries for endometrial cancers. Clinical training was given to postgraduate students from Radiation Oncology, Surgical Oncology, Medical Oncology, Gynaecologic Oncology and Gynaecology. Students of Gynaecology, Urology and Radiotherapy from various medical colleges were posted in the unit. Gynaec tumour board and urology tumour boards were conducted regularly.

Clinical Services/Procedures Offered

Patients consulted	
Patients	No.
New cases	2708
Review cases	31,262
Total	33,970

Radiotherapy

Radical			Brachytherapy	Palliative
3D CRT	IMRT	2D Planning		
104	117	653	1606	257

Surgical Procedures

Gynaecological cancers

Ovarian	179
Endometrial	110
Cervical	28
Vulva	9

Urological cancers

Nephrectomy	15
Penectomy	13
Bladder	8
Others	64

Skin cancers

	68
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Chemotherapy

Concurrent chemo-radiotherapy	270
Neoadjuvant chemotherapy/Hormone therapy	246

'E' CLINIC

(CHEST & GASTROINTESTINAL)



'E' clinic caters to patients with thoracic and gastro-intestinal tumours. The clinic offers comprehensive multidisciplinary state-of-the-art radiotherapy, surgery and chemotherapy services. Image guided, gated radiotherapy, and stereotactic body radiotherapy (SBRT) were provided when clinically indicated. Clinical training was given to postgraduate students of Radiation Oncology, Surgical Oncology and Medical Oncology of RCC and other Medical Colleges.

Clinical Services/Procedures Offered

Patients consulted	
Patients	No.
New cases	3702
Review cases	33,002
Total	36,705

Radiotherapy				
Radical				Palliative
Conformal	IMRT	CT/2D Plan	Brachytherapy	
330	143	200	5	785

Surgical procedures				
Esophagus	Stomach	Hepatobiliary & Pancreas	Colorectal	Others
78	106	34	257	187

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

Contouring Workshop on Ano-rectal Malignancies on 7 November 2015, chaired by Dr. Diana Tait and Dr. Glees, Royal Marsden Hospital, London.

Observers/Trainees: 42 postgraduate students and 24 observers

Visitors: Five

'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, southern Karnataka, Andamans, 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 1756 admissions were recorded in paediatric ward. The regular running of the clinic was supported by CANKIDS, a charitable NGO.

Clinical Services/Procedures Offered

Patients consulted	
Patients	No.
New cases	645
Review cases	14,728
Total	15,373

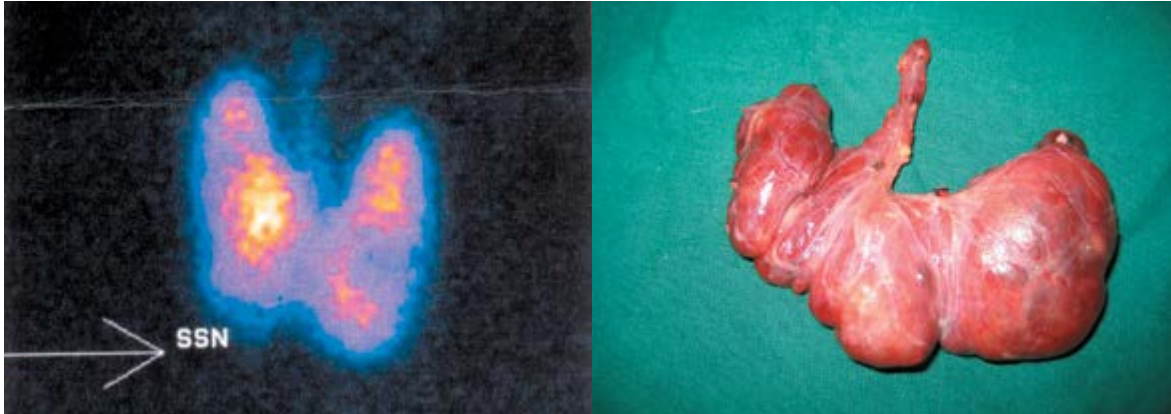
Procedures

Procedures	Number
Intrathecal medication	2214
Lumbar puncture	426
Bone marrow aspiration/biopsy	905
PICC line insertion	81
PICC line dressing & resuturing	56
Trucut biopsy	22
FNAC	47
Pleural/ascitic tapping	3
Chest tube insertion	3
Ventilator support	32
Wound C & D, aspiration for C & S	26

Academic activities

The clinic provided regular training to postgraduate students in Paediatric Oncology, Radiotherapy and Medical Oncology from within RCC and also from various Medical Colleges. Observers from foreign academic institutions also attended the clinic.

'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	No.
New cases	1,409
Review cases	19,849
Total	21,258

Nuclear Medicine services

Immunoassays	SPECT Gamma camera	Radio-iodine Therapy	
		Thyroid Cancer	Thyrotoxicosis
56,366	6908	600	181

Surgical Procedures

Total Thyroidectomy	Hemi Thyroidectomy	Revision/Completion Thyroidectomy
177	9	61

Public Relations Activities

Surendran Nair V

Public Relations Officer (Sr. Gr.)

The Public Relations wing deals with media relations, Cancer Care for Life scheme, security services, telephone exchange, complaint redressal, information counter, public functions, advertisements, coordination of volunteers, receptionist training programme, poor patients welfare fund campaign, and preparation of brochures, articles, documentaries and other media publicity materials.

Fund Raising Activities

Fund raising campaign to promote contribution to the poor patients welfare fund (Akshayapathram) has been organised with the help of several individuals and philanthropic organizations. Contribution was received from 1424 donors and 423 patients benefited during this period. This fund has been utilized for food, medicine, and rehabilitation of patients who were not covered under any patient welfare schemes and those from Tamil Nadu.

Cancer Awareness Programmes

Breast cancer awareness campaign was organized in October 2015. Classes were conducted in different parts of the State to increase awareness about various patient welfare schemes. A special cancer awareness serial was aired by ACV News channel since September 2015 with the support of PR wing. Asianet TV channel aired activities of the Centre through their programme 'Sell Me the Answer'. All India Radio and various TV channels aired awareness programme on cancer with the support of PR wing.

Training provided

- Third batch of Receptionist Trainees successfully completed one year training and 4th batch Training Programme was started in July 2015. Eight candidates are undergoing training.
- Public relation and communication orientation classes were conducted for various students and trainees in MSW, MHA, MCJ, MBA, Medical Documentation, etc.

Honours, Awards and Recognitions Received

Aleyamma Mathew (Professor)

- Received Dr. Nandagudi Suryanarayana Rao award in the 55th Annual Conference of National Academy of Medical Sciences held in Patna, October 2015.
- Selected for Achanta Lakshmi pathi Oration 2015-16 by National Academy of Medical Sciences, New Delhi in March 2016.

Alphy Rose James (Research Scholar), received best oral presentation award for the paper 'In silico and In vitro studies indicate the potentiality of Galactoxyloglucan Imatinib mesylate nanoparticles against multidrug resistant cells' at the conference on Recent Biochemical approaches in Therapeutics, Thiruvananthapuram, 9- 11 December 2015.

Anil Prahladan (Assistant Professor), was awarded European Diploma in Radiology by the European Board of Radiology (March 2016)

Balagopal PG (Additional Professor), received P.Kesavadev Memorial award for health literature for the book titled 'What you need to know about breast cancer?.'

Bindhu KG (Staff Nurse), secured second rank in the Post Basic Diploma in Specialty Nursing (first rank in Oncology Nursing specialty) Examination conducted by Kerala Nurses and Midwives Council. (October 2015)

Bipin T.Varghese (Additional Professor)

- Received Special Appreciation award from Government of Kerala (Department of Health and family Welfare) during Doctors day celebrations on 1 July 2015.
- Received Distinguished Alumnus Award by Trivandrum Medical College Alumni Association. (September 2015)

Chandramohan K (Additional Professor)

- Received Association of Surgeons of India Dr. G. G. Chatterjee Travelling Fellowship 2015.
- Received ASI Kerala Chapter Research Grant 2015.
- Received ICRET Fellowship in Cancer Surgery, for training at the Tokyo Metropolitan Komagome Hospital, Tokyo (13 November -12 December 2015)

Divya Raj (Assistant Professor), won 'Shastrapuraskaram 2015', State award for Best Post graduate research title 'Frequency of Human Papillomavirus Infection in Oral Squamous Cell Carcinoma and its clinical significance: A retrospective study'. (September 2015)

Elizabeth Mathew Iype (Additional Professor), was awarded PhD by University of Kerala for the thesis, 'Selected molecular markers as indicators of clinical profile, tumour characteristics and treatment outcome in squamous cell carcinoma of the larynx'.

Farha AK (Research Scholar), was awarded PhD by University of Kerala for the thesis, 'Molecular mechanisms involved in the cell death induced by deoxyelephantopin, a sesquiterpene lactone from *Elephantopus scaber*'. (October 2015)

Francis V. James (Professor), awarded FICRO in November 2015

Gigi Thomas (Additional Professor), was awarded PhD in Dentistry by the University of Kerala for the thesis 'An evaluation of three prognostic biomarkers in the risk assessment of leukoplakia'. (December 2015)

Guruvayoorappan C (Assistant Professor)

- Received ISTE-Periyar Award by Indian Society for Technical Education. (December 2015)
- Received Young Scientist Award (Saraswathy Srinivasan Prize) by Tamil Nadu Academy of Science. (February 2016)

Jayakrishnan R (Associate Professor), was awarded PhD in Epidemiology by the University of Tampere, Finland for the thesis 'A community intervention trial for smoking cessation in rural Kerala, India'. (December 2015)

Manu M Joseph (Research Scholar)

- Awarded PhD by University of Kerala for the thesis, 'Studies on *Tamarindus indica* polysaccharide nanoparticle as immunomodulatory/ anticancer agent and as a potent

drug carrier' (August 2015)

- Received best oral presentation award for the paper 'Galactoxyloglucan silver nanoparticles as excellent anticancer agent and SERS substrate' at the conference on Recent Biochemical approaches in Therapeutics, Thiruvananthapuram, 9-11 December 2015.

Mira Sudam Wagh (Assistant Professor), received second best poster award for the poster 'Intra-operative extracorporeal radiation: a limb sparing option in bone tumour, at Annual Conference of the Indian Musculo Skeletal Oncology Society, Kochi, March 2016.

Nebu Abraham George (Assistant Professor), received Indo American Cancer Association one month travelling fellowship to MSKCC, New York, April 2015.

Nitish Ranjan (MCh, Surgical Oncology student), received best poster award for the poster 'Is faecal diversion mandatory for rectal cancer patients undergoing low anterior resection after NACTRT?', at the National Conference of IASO, Bhubaneswar, September 2015.

Prabha Pillai (Research Scholar), was awarded PhD by University of Kerala for the thesis, 'Role of signal transducers and activators of transcription in breast carcinogenesis'. (November 2015)

Rajasree O (Assistant Professor), won Ish Narani 2nd prize for the poster 'Anaesthetic management of pheochromocytoma in a patient with left heart failure' at the Annual National Conference of Indian Society of Anaesthesiologists, Jaipur. (December 2015)

Rema P (Additional Professor), received best paper award for the paper 'Pelvic exenterations for recurrent cancer cervix' at the National Conference of Gynaecologists of India (AGOICON 2015).

Saji S Nair (Assistant Librarian), was awarded PhD by University of Kerala for the thesis, 'An evaluative study of Library and Information Centres in the field of Allopathic Medicine in Kerala'. (May 2015)

Sangeetha Vijay (Research Scholar), was awarded PhD by University of Kerala for the thesis, 'Molecular genetic basis of resistance to Imatinib mesylate treatment in chronic myeloid leukaemia patients'. (May 2015)

Shanone C. Periera (Research Scholar), was awarded PhD by M.S University for the thesis, 'Role of Galectins in the differential diagnosis of thyroid malignancies in FNAC'. (March 2016)

Sreelekha TT (Assistant Professor)

- Received Dr.S.Vasudev award for the best project report for the year 2015 by Kerala State Council for Science Technology & Environment, Govt. of Kerala.
- Received Dr. Divya Ravindran Memorial Award 2015 for best research paper for the year 2014-2015: Manu MJ, Aravind SR, Suraj KG, Pillai R, Mini S, Sreelekha TT. 'Galactoxyloglucan-modified nanocarriers of doxorubicin for improved tumor-targeted drug delivery with minimal toxicity'. J Biomed Nanotechnol. 2014/10(11):3253-68. (16 October 2015)

Surendran Nair V (Public Relation Officer, Sr. Gr.), was honoured by Snehathalam Charitable Society, Kollam for the contribution in cancer awareness through print and electronic media.

Than Singh Tomar (MCh, Surgical Oncology student), received second best poster award for the poster 'Role of laparoscopy in predicting surgical outcomes in patients undergoing interval cytoreduction', at International Live Robotic Surgery Workshop and Master Class in Gynaecology Oncology, Kochi, September 2015.

Functions, Workshops & Conferences organized

Sl. No.	Name of Programme	Date
1.	National Workshop on Refining Skills in Oncology Nursing Research	8-10 April 2015
2.	World No Tobacco Day	31 May 2015
3.	Workshop on Managerial Skill for Nurses	8 August 2015
4.	International Workshop on Precision Radiotherapy	12-13 September 2015
5.	National Cancer Awareness Day	7 November 2015
6.	Contouring Workshop on Ano-rectal Malignancies	7 November 2015
7.	AMPICON 2015: 36th Annual Conference of Association of Medical Physicists of India	20-22 November 2015
8.	International CME on Lymphomas	9-10 January 2016
9.	World Cancer Day: Inauguration of State level Programmes	4 February 2016
10.	Inauguration of New OP Block, Commissioning of PET-CT Scanner and Anaesthesia Simulation Lab	19 February 2016

Distinguished Visitors/Talks delivered

Sl. No.	Visitor/Talk delivered	Date
1	Dr. M.K.C. Nair, Vice- Chancellor, Kerala University of Health Sciences	31 May 2015
2	Dr. Scott Berry, Medical Oncologist, Sunnybrook Odette Cancer Centre, Toronto, Canada. Talk: 'Opportunities for oncology education in India'.	3 June 2015
3	Dr. Christopher Booth, Associate Professor of Medical Oncology and Cancer Health Services Researcher, Queen's University, Canada. Talk: 'Cancer care and outcomes achieved in routine clinical practice'.	4 June 2015
4	Dr. Ashraf Mannan, Director of Medical Genetics and Genomics, Strand Life Sciences, Bangalore. Talk: 'Precision medicine in oncology'.	19 September 2015
5	Dr. Diana Tait and Dr. Glees, Royal Marsden Hospital, London. Chaired: 'Contouring Workshop on Ano-rectal Malignancies'.	7 November 2015

GALLERY

Inauguration of the new OP Block, Commissioning of PET-CT Scanner and Anaesthesia Simulation Lab (19 February 2016)



New OP Block

PET-CT Scanner

Anaesthesia Simulation Lab



Inauguration of World No Tobacco day 2015 by Prof. M.K.C. Nair, Hon'ble Vice Chancellor, Kerala University of Health Sciences (31 May 2015)



Inauguration of National Cancer Awareness Day 2015 by Dr. P.K. Radhakrishnan, Hon'ble Vice Chancellor, University of Kerala (7 November 2015)



Inauguration of the 36th Annual Conference of Association of Medical Physicists of India (AMPICON 2015) by Shri.V.S. Sivakumar, Hon'ble Minister for Health & Family Welfare, Govt. of Kerala (20 November 2015)



Inauguration of the International CME on Lymphomas by Dr. M. Balaraman Nair, Director of Medical Education (Rtd), Govt. of Kerala (9 January 2016)



World Cancer Day 2016 (4 February 2016)

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

INTERNATIONAL

Sl. No.	Delegate/Speaker	Conference/Meeting	Date & Venue	Paper/Talk/Poster/Delegate's status
1	Anil Prahladan	European Congress of Radiology 2016	2 – 6 Mar 2016, Vienna, Austria	Delegate
2	Varun Rajan	ESMO ASIA 2015	18-21 Dec 2015, Singapore	Poster: Response to bortezomib in newly diagnosed multiple myeloma: A single centre experience from India
3	Chandramohan K	4th Biennial Meeting of Eurasian Colorectal Technologies Association	25 - 26 May 2015, Moscow, Russia	Talks: 1. Minimally invasive surgery for colorectal cancer: is there a uniform consensus in Europe and Asia? 2. Laparoscopic abdominoperineal resection. Is it a good start to learn laparoscopic cancer surgery?
4	Elizabeth Mathew Iype	Annual Clinical Congress of the Philippines Association of Surgeons 2015	6-9 Dec 2015, Manila, Philippines	Talks: 1. Radical surgery for locally advanced head and neck cancer 2. The standard of care of laryngeal cancer 3. Supraomohyoid neck dissection. 4. Achieving excellence in head and neck surgery. Video on surgery: Laryngopharyngo esophagectomy and gastric pull up.
5	Francis V. James	Gynecologic Cancer Intergroup-Cervix Cancer Research Network (GCIg CCRN) Education Symposium	28-29 Jan 2016, Bangkok	Delegate
6	Guruprasad CS	AKMG Emirates Cancer: Understanding the Unknown	13 Nov 2015, Rasal Kaimah, UAE	Faculty
7	Leena Rose Johnson	4 th Biennial Meeting of Asian Society of Gynaecologic Oncology	12-14 Nov 2015, South Korea	Talk: A prospective randomized controlled trial investigating the role of subcutaneous suction drain in the prevention of superficial surgical site infections following midline laparotomy in gynecological oncosurgery.
8	Ramadas K	Consultative Meeting On Early Detection And Screening Of Priority Cancers In The Eastern Mediterranean Region	14-15 Jan 2016, Cairo, Egypt.	Invited speaker
		Global Health Forum 2015	1- 2 Nov 2015, Taiwan	Faculty

9	Roshni S	Asian Oncology Summit	10-12 Apr 2015, Shanghai, China.	Poster : Dosimetric comparison of volumetric intensity modulated radiotherapy and 3D conformal radiotherapy for primary liver tumor
10	Saju B	7 th International Oncology Conference	11-13 Sep 2015, Oman	Paper: IGRT: Q A and implementation
11	Sreelekha TT	7th International Conference on Drug Discovery and Therapy (7th ICDDT)	15-18 Feb 2016, University of Sharjah, Sharjah, UAE	Talk: Galactoxyloglucan doxorubicin nanoparticles exerts superior cytotoxic effects on cancer cells by inhibiting tyrosine kinases: A mechanistic and in silico study
12	Sujathan K	International Conference on Cytopathology	31 Aug- 2 Sep 2015, Toronto, Canada	Paper: Computer aided screening of cervical cancer using methodologies of quantitative cytology
		3 rd Nordic Symposium on Digital Pathology	3- 4 Nov 2015, Linkoping, Sweden.	Delegate
13	Sumod Mathew Koshy	European Congress of Radiology 2016	2 – 6 Mar 2016, Vienna, Austria	Poster: Diffusion weighted MR imaging of breast: can it add to the specificity of breast MRI?: report from a tertiary cancer care hospital in South India.
14	Susan Mathews	American Brachytherapy Society Annual Meeting	9–11 Apr 2015, Orlando, Florida	Paper: Can trans abdominal ultrasound replace computer tomography imaging for conformal intracavitary brachytherapy in carcinoma cervix?:a preliminary analysis Posters: 1. Image based brachytherapy in carcinoma cervix using single pre-brachy MRI: a single institution experience. 2. CT optimized brachytherapy for locally advanced carcinoma cervix: clinical outcome analysis

NATIONAL

Sl. No.	Delegate/ Speaker	Conference/Meeting	Date & Venue	Paper/Talk/Poster/Delegate's status
1	Aleyamma Mathew	National Workshop on Refining skills in Oncology Nursing Research.	8-10 Apr 2015, Thiruvananthapuram	Talk: Sampling techniques and sample size.
		4 th International Congress on Kerala Studies 2015	23 May 2015, Thiruvananthapuram	Talk: Cancer in Kerala.
		International Association of Cancer Registry Annual Meeting	7-10 Oct 2015, Mumbai	Papers: 1. Urban-rural differences of cancer incidence & mortality in Kerala. 2. Trends in cancer incidence in Trivandrum Taluk (2005-2014).
		Workshop for Kudumbasree workers in Pathanamthitta district	15 Oct 2015, Pathanamthitta	Talk: How to conduct cancer survey?
		Annual Conference of National Academy of Medical Sciences, Patna	18-19 Oct 2015, Patna	Talk: Cancer in Kerala: Completeness and quality of follow-up.
		Research day of Karakkonam Medical College, Trivandrum.	1 Dec 2015	Talk: A step towards quality medical research
		International Conference on statistics for 21 st century	17-19 Dec 2015, University of Kerala, Thiruvananthapuram	Talk: Statistics leads to cancer epidemiology
2	Aleyamma Mathew, Swapna C R	National Oncology nursing conference: Metamorphosis in cancer care: A new paradigm for tomorrow's cancer care	11-12 Mar 2016, Kochi	Delegates
3	Alphy Rose James	Recent Biochemical approaches in Therapeutics	9-11 Dec 2015, Thiruvananthapuram	Paper: In silico and In vitro studies indicate the potentiality of galactoxyloglucan imatinib mesylate nanoparticles against multidrug resistant cells.
4	Anila KR	1 st Basic course in Molecular Diagnostics	14-25 Sep 2015, CMC, Vellore	Delegate
		45 th Annual Conference of Indian Association of Cytologists	19-22 Nov 2015, Himalayan Institute of Medical Sciences, Dehradun	Paper: Cytomorphologic spectrum of lymphocytic thyroiditis and correlation of cytologic grading with biochemical parameters.
		International CME in Pathology, Histopathology and Cytopathology	4- 6 Feb 2016, Goa	Paper: Cytomorphologic spectrum of Hurthle cell neoplasm: Analysis of 54 cases.
5	Anil Prahladan	BRACE 2015	10- 11 July 2015, Madras Medical College, Chennai	Talk: Imaging of oral cavity malignancy
		G-RAD 2015: CME on Breast imaging	28 Oct 2015, Sree Sree Gokulam Medical College, Thiruvananthapuram	Talk: Recent advances and future directions in breast imaging
		IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Panel Member
		35 th Annual Conference IRIA Kerala Chapter	24-25 Mar 2016, Kannur	Faculty: Imaging in ovarian cancer
6	Anitha Mathews	Victorypath 2015: CME on Neuropathology, Salivary gland pathology and Gross pathology	April 2015, Govt. Medical College, Thiruvananthapuram	Faculty
7	Anitha Mathews, Preethi TR, Anila KR, Rari P. Mony, Latha A	APCON 2015: Annual Conference of IAPM	4-6 Dec 2015, Le Meridian, Kochi	Delegates

8	Anitha Sen	MCI Basic Course Work Shop Conducted By MET (Medical Education Technology) Wing of Medical Council of India.	June 2015, Govt. Medical College, Kottayam	Delegate
9	Arun Peter Mathew	9 th International Hepato-Pancreato Biliary Association (IHPBA) - India Chapter Certificate Course in Hepato-pancreatico-biliary surgery	29 July – 2 Aug 2015, Coimbatore	Delegate
		Training Course in Bioethics for Medical & Dental Teachers	14-16 Jan 2016, Kerala University of Health Sciences, Thrissur	Delegate
		IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Talk: Biopsy for soft tissue sarcoma
10	Arun Peter Mathew, Mira Sudam Wagh	Advanced Hands-on Colorectal training	22 Sep 2015, Mumbai	Delegates
11	Arun Sankar S	International Workshop On Precision Radiotherapy (IWPR)	12 Sep 2015, RCC	Chaired session on Pancreatic Cancer
		Clinical Oncology 2015: State Conference of AROI Kerala Chapter	15 Nov 2015, Kottayam	Paper: Role of radiotherapy in Ewing's sarcoma
		IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Poster: Clinical profile and treatment outcome of extracorporeal irradiation for malignant bone tumors: A retrospective analysis.
		Training: 3T Plus ETTCTraining Course in Bioethics for Medical and Dental Teachers by The UNESCO Chair Bioethics	14-16 Jan 2016 KUHS, Thrissur	Delegate
12	Asa Rani KS	2 nd National Conference of ISRT	25-26 Sept 2015, Govt. MCH, Chandigarh	Paper: Role of Technologists in the QA of non- invasive cranial SRS.
13	Bajjudeen B, Bindhu M	Workshop on Acute trauma life support	6 Jan 2016, Sree Avittom Tirunal Hospital, Thiruvananthapuram	Delegates
14	Balagopal PG	ICON 2015: 33rd Meeting of the Indian Cooperative Oncology Network	4-6 Sept 2015, Coimbatore	Moderated session on Chemotherapy in head and neck cancers.
		International Workshop on Endoscopic Skull Base Surgery	11-13 Oct 2015, SUT Hospital, Thiruvananthapuram	Moderated session on role of endoscopic surgery in management of head and neck cancers.
		International Conference on Diabetes	August 2015, Thiruvananthapuram	Talk: Diabetes and cancer
15	Binitha R.	GAPP, ICCP 2 : Good Antimicrobial Prescription Practices And Infection Control Certification Programme for Medical Professionals 2016.	19-21 Feb 2016, AIMS, Kochi	Delegate
16	Binitha R, Prasanth, Gopakumar, Rari P, Mony	IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Delegate
17	Bipin T.Varghese	Annual Conference of FHNO	10-13 Sep 2015, Nagpur	Video assisted instructional talk: Submental artery island flap in head and neck reconstruction.
		Preconference CME of IASO 2015	17 Sep 2015, Bhubaneswar	Video assisted guest lecture on partial laryngectomy.
		International Workshop on Endoscopic Skull Base Surgery	11-13 Oct 2015, SUT Hospital, Thiruvananthapuram	Chaired talk on: Application of endoscopic approach to skull base in para-nasal sinus malignancies by Prof. Carl Snyderman
		International CME and hands workshop on Lasers in Larynx Cancers	5-6 Feb 2016, CMC Vellore	Live surgical demonstration of submental artery island flap.

18	Kainikkal CT	AROJ – Kerala chapter meeting	April 2015, Kochi	Talk: Concurrent chemo radiation in locally advanced head and neck cancer
		Meet the faculty programme	27 May 2015, Malabar Cancer Centre	Faculty
		AROJ Kerala chapter Annual meeting	October 2015, Kottayam	Role of Induction chemotherapy in head & neck cancer
		Work shop on contouring in head and neck cancers organised by AROJ state chapter	Feb 2016, Kochi	Talk: Contouring of carcinoma nasopharynx.
19	Chandramohan K	Inaugural CME of Kerala Association of Surgical Oncologists	11 Apr 2015, Thiruvananthapuram	Organizing Secretary
		KASICON 2015	10 May 2015, Kannur	Video presentation low anterior resection.
		Kerala Association of Surgical Oncology: CME on Gynaec Malignancies	18 Oct 2015, Malabar Cancer Centre, Thalassery	Panel Discussion Training in gynae oncology.
		National Rectal Cancer Workshop and CME	30 Jan 2016, Bangaluru	Panel discussion on low rectal cancer.
		Integrating Palliative Care And Oncology: Evidence Based Approach	21 Feb 2016, Calicut	Talk: Metastatic Colorectal Cancer: Surgical Palliative Options
IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Talk: Palliative surgery in extremity & retroperitoneal sarcoma: recent advances.		
20	Cherian M. Koshy	Doctors Day	1 Jul 2015, General Hospital, Munnar	Chief guest and speaker on palliative care
		Pain Update Workshop	3 Jan 2016, KIMS, Thiruvananthapuram	Talk: Living before leaving: the ethos of Palliative Care
		International Conference of Indian Association of Palliative Care	12 –14 Feb 2016, Pune	Chairperson Poster: Rainbow of palliative care activities carried out through a primary health centre.
21	Deepthi J. Prabhu	In house two day workshop and training programme on mechanical ventilation for medical oncology postgraduates	12-13 Nov 2015, RCC	Organiser
22	Drishya G	39th All India Cell Biology Conference on Cellular Organization and Dynamics.	6– 8 Dec 2015, Thiruvananthapuram	Poster: In vitro culture of primary cells from cancer patients- screening for potent MMP inhibitor.
23	Elizabeth Mathew lype	15th National Conference of Foundation of Head and Neck Oncology (FHNO)	11-13 Sep 2015, Nagpur	Chaired session on “New Perspectives in Chemotherapy for Head-Neck SCC”
24	Francis V. James	AROICON 2015	26-29 Nov 2015, Lucknow	Talk: Is RT still relevant in India in the context of stage I seminoma?
25	Georgia George	Indian National Training Program in Pediatric Oncology	14 Mar – 02 Apr 2016 Tata Memorial Hospital, Mumbai	Delegate
26	Gigi Thomas	48 th Kerala State Dental Conference	8-10 Jan 2016, Alappuzha	Delegate
27	Guruprasad CS	PICCLE 2016 – Exam CME	16-17 Jan 2016, SATH, Thiruvananthapuram	Faculty
28	Guruvayoorappan C	National Conference on “Experimental Therapeutics and Clinical Research”	24 Feb 2016, Periyar University, Salem	Talk: Inflammatory bowel disease and cancer: role of natural products in treatment.
		National Seminar on ‘Animal Welfare and Ethics’.	11-12 Dec 2015, Karunya University, Coimbatore	Delegate
29	Hareesh, Varun Rajan	SPEAK: Teaching Course on Carcinoma Ovary	13 Dec 2015, Mumbai	Delegates

30	Hariharan S	Workshop on Recent Issues in Biomedical Research	29 July 2015, College of Engineering, Karunagapally	Talk: Importance of image analysis in cytogenetics and FISH techniques in medicine.
		Workshop on Automated Metaphase finder and FISH spot Counting	3 Aug 2015, Centre for Human Genetics, Chennai	Talk: Automation on cytogenetics and FISH techniques.
		Workshop on 'Diagnostic techniques'	10 Oct 2015, RCC	Talk: Diagnostic importance of IHC, ICC and flow cytometry in cancer.
		National workshop on 'Molecular Diagnostics'	18-19 Jan 2016, University of Kerala, Karyavattom.	Lecture and demonstration. 'Diagnostic Importance of Cytogenetics and FISH in cancer'.
		6 th International Translational Cancer Research Conference	4 -7 Feb 2016, Ahmedabad	Talk: Cytogenetic abnormalities and Its impact on treatment response and survival: A study from Kerala.
		Seminar on 'Diagnostic techniques in medicine'	11 Feb 2016, Govt. college, Karyavattom.	Talk: Diagnostic techniques in cancer.
		CME on Florescent In Situ Hybridization Technique	18 Mar 2016, New Delhi	Delegate
		Seminar on 'Gene therapy: the great debate'	29 Mar 2016, Lekshmypuram College of Arts and Sciences, Neyyoor	Talk: Life style and cancer.
31	Iqbal Ahamed M, Arun Peter Mathew, Suchetha S	Peritoneal Surface Oncology Group International (PSOGI) workshop on Peritoneal Surface Malignancies	16-18 April 2015, Bengaluru	Delegates
32	Iqbal Ahamed M	Kerala Association of Surgical Oncology: CME on Gynaec Malignancies	18 Oct 2015, Malabar Cancer Centre, Thalassery	Introductory talk
		IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Talk: Radiation in sarcomas: Surgeons perspective.
33	Iqbal Ahamed M, Paul Augustine, Chandramohan K, Arun Peter Mathew, Kurian Cherian, Anoop TM, Mira Sudam Wagh	Trivandrum Cancer Congress: International CME on Colorectal Cancers	8-9 Nov 2015, Thiruvananthapuram	Delegates
34	Jagathnath Krishna K M	International Conference on statistics for 21 st century	17-19 Dec 2015, University of Kerala, Thiruvananthapuram	Talk: Biasedness in cancer survival estimates due to non-uniform loss to follow-up and non-proportional hazards
		International Biometry Society-Indian Region & Public Health Evidence South Asia, Joint conference,	11-12 Jan 2016, Manipal	Talk: Red meat intake and colorectal cancer: A meta-analysis.
35	Jaisankar P	Indian Society of Medical and Paediatric Oncology 2015 Meeting	6-8 Dec 2015, Mumbai	Posters: 1. The prognostic significance of absolute monocyte count, absolute lymphocyte count and its ratio in NHL (hypothesis). 2. Clinical features and treatment outcome of Ph positive acute lymphoblastic leukemia in adults.
36	Jayakrishnan R	South Indian Homeopathy Conference	2 May 2015, Kozhikode	Paper: Oral cancer: prevention and control
		Voice of Tobacco Victims patrons meeting	27 June 2015, Chhatarpur, New Delhi	Talk: Bidi taxes in Kerala.

37	Jayasree K	INSIGHT 2015: 7 th Annual CME on Bone Tumours	21 June 2015, Thiruvananthapuram	Faculty Metastatic bone tumours
		APCON 2015: Annual Conference of Indian Association of Pathology and Microbiology	3-6 Dec 2015, Kochi	Faculty: Tumour like lesions of bone. Chaired session: Oral cancers. Poster: Vascular tumours of bone: A 5 year retrospective study in a tertiary care centre.
		International CME on Lymphomas: Mysteries of the Lymph Node Revealed	9 – 10 Jan 2016, Thiruvananthapuram	Organising chairperson
		HISTOCON 2016: Annual CME	5 Mar 2016, MCH, Thrissur	Faculty: Slide Seminar on bone tumours
		IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Faculty: 1. IHC of soft tissue tumours. 2. Fibrous and fibrohistiocytic lesions of bone. Posters: 1. Osteoblastoma: A case report and review of literature. 2. ALK positive anaplastic large cell lymphoma (ALCL) with primary bone involvement. 3. Spine tumours: 5 year study. 4. Aggressive angiomyxoma of retroperitoneum: A case report. 5. Chordoma: A retrospective case series analysis.
38	Jayasree K, Anitha Mathews, Preethi TR, Anila KR, Renu S, Priya Mary Jacob, Jayasudha AV, Neelima Radhakrishnan	IAPM Kerala Chapter Meeting	13 Feb 2016, Govt. Medical College, Thiruvananthapuram	Delegates
39	Jayasudha AV	APCON 2015: Annual Conference of IAPM	4-6 Dec 2015, Le Meridian, Kochi	Poster: Frequency and distribution of peripheral T cell lymphoma in a tertiary care centre in Kerala: A two year study
40	Jiji V	Clinical Update Training To PHC Medical Officers	17 Dec 2015, KSIHFW, Thiruvananthapuram	Talk: Clinical update training to PHC medical officers.
		Medical Imaging In Clinical Practice	14 Jan 2016, KSIHFW, Thiruvananthapuram	Talk: Medical imaging in clinical practice.
		Medical Imaging	3 Mar 2016, KSIHFW, Thiruvananthapuram	Talk: Medical imaging
41	Jithin K	PHOCON 2015	19-22 Nov 2015, Pune	Poster: Hyponatraemia during induction chemotherapy in pediatric patients with acute lymphoblastic leukemia.
42	Joseph MM	Recent Biochemical approaches in Therapeutics	9-11 Dec 2015, Thiruvananthapuram	Paper: Galactoxylglucan silver nanoparticles as excellent anticancer agent and SERS substrate.
43	Kalavathy MC	International Conference on statistics for 21 st century	17-19 Dec 2015, University of Kerala, Thiruvananthapuram	Talk: Reproductive factors and premalignant conditions of cervix uteri: Hospital based screening programme.
44	Krishnachandran R	28 th Kerala Science Congress	28-30 Jan 2016, Malappuram	Paper: The incidence, patterns and prognostic significance of BCRABL rearrangement in three clinical phases of CML patients using FISH.

45	Kurian Cherian, Rexeena V. Bhargavan	Inaugural CME of Kerala Association of Surgical Oncologists	11 Apr 2015, Thiruvananthapuram	Delegates
46	Lizyamma Jacob Geethakumari B Sindhumol M G	17 th National Oncology Nursing Conference	5 -7 Nov 2015, AIIMS, Delhi	Delegates
47	Madhu Muralee	KASICON 2015	10 May 2015, Kannur	Video on Perineal dissection in rectal cancers.
		Annual ASI Kerala Chapter CME	September 2015, Calicut	Panel discussion on Sarcoma.
		Trivandrum Cancer Congress, International CME on Colorectal Cancers	8-9 Nov 2015, Thiruvananthapuram	Talk: Staging and prognosis on colorectal cancers.
		75 th ASICON 2015	16-20 Dec 2015, Delhi	Talk: Perineal complications of APR.
		ASI Peripheral Meet	February 2016, Adoor	Faculty in a live workshop
		ASGCON 2016	March 2016, Kollam	Talk: Extra levator APR
48	Mallika Balakrishnan, Viji S. Pillai	'JAI – CME': Jubilee Anaesthesia Insight, Workshop on Ultrasound guided Regional Anaesthesia and Advanced Nerve Blocks	April 2015, Thrissur	Delegates
49	Mallika Balakrishnan, Viji S. Pillai, Sudha P, Bhagyalakshmi R, Subha R, Rajasree O, Deepthi J, Prabhu, Radhika Devi B	TRISZAC 2015: 31 st Annual South zone and 39 th Annual conference of Kerala Chapter of ISA	6-9 Aug 2015, Thiruvananthapuram	Delegates
50	Mallika Balakrishnan, Subha R	AORA 2015: Regional Anaesthesia Conference	23-25 Sep 2015, Bangalore	Delegate
51	Malu Rafi	Work shop on contouring in head and neck cancers organised by AROI state chapter	Feb 2016, Kochi	Talk: Contouring for carcinoma oropharynx.
52	Manjusha Nair	PHOCON 2015	19-22 Nov 2015, Pune	Poster: Outcome of pediatric medulloblastoma: experience from a Regional Cancer Centre in India.
53	Mary Thomas	TRISZAC 2015: 31 st Annual South zone and 39 th Annual conference of Kerala Chapter of ISA	6-9 Aug 2015, Thiruvananthapuram	Talk: Sterilisation and disinfection of OT.
		Anesthesia Refresher Course (ARC)	18 Oct 2015, AIMS, Kochi	Talk: Evaluation of COPD patient coming for surgery.
		ISAMIDCON 2016: Midterm CME and PG Quest organized by ISA Kerala State Chapter	13 Mar 2016, MOSC Medical College, Kolencherry	Talk: Anaesthesia for head and neck surgery.
54	Maya Devi L Geetha Kumari B S	National Ostomy Care, Educational Event	18 Apr 2015, Hyderabad	Delegates
		Living with Stoma: an Update	13 Jan 2016, Sree Gokulam Nursing College, Thiruvananthapuram	Resource persons
55	Mira Sudam Wagh	IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Poster: Intra operative extracorporeal radiation: A limb sparing option in bone tumour.
56	Molly MT	Training of Trainers of Nurses on Tuberculosis under GFATM Round -7	28-30 Sep 2015, Gov. College of Nursing, Thiruvananthapuram	Delegate

57	Nileena Nayak	Victorypath 2015: CME on Neuropathology, Salivary gland pathology and Gross pathology	April 2015, Govt. Medical College, Thiruvananthapuram	Faculty Cytology of salivary gland tumors: Lecture & slide seminar.
		IAPM Kerala Chapter Meeting	8 Aug 2015, Pushpagiri Medical College, Thiruvalla	Poster: Histoplasmosis masquerading as thymic malignancy: A case report.
		45th Annual Conference of Indian Association of Cytologists	19-22 Nov 2015, Himalayan Institute of Medical Sciences, Dehradun	Poster: 1. Utility of histogel in routine cellblock: A pilot study. 2. Clinical, radiological and morphological mimickers of lung carcinoma: case reports of 3 benign lesions diagnosed on fine needle aspiration.
		APCON 2015: Annual Conference of IAPM	4-6 Dec 2015, Le Meridian, Kochi	Poster: 1. An analysis of cytology of germ cell tumors with histopathological and serum marker correlation: A tertiary care centre experience. 2. Guided fine needle aspiration biopsy of solid pancreatic lesions: 2 year retrospective study.
58	Nileena Nayak, Sindhu Nair P, Anila KR, Renu S, Priya Mary Jacob, Jayasudha AV, Rari P. Mony	International CME on Lymphomas: Mysteries of the Lymph Node Revealed	9 – 10 Jan 2016, Thiruvananthapuram	Delegates
59	Nileena Nayak	IAC KC CON 2016: 4 th Annual Cytology Conference of IAC, Karnataka chapter	29-30 Jan 2016, JSS Medical College, Mysuru	Faculty Fine needle aspiration cytology of salivary gland lesions: lecture & slide seminar
		International CME in Pathology, Histopathology and Cytopathology	4- 6 Feb 2016, Goa	Paper: A minimal antibody panel approach for subtyping non small cell lung carcinoma on cellblocks: A retrospective study.
		IAPM Kerala Chapter Meeting	13 Feb 2016, Govt. Medical College, Thiruvananthapuram	Paper: Histoplasmosis masquerading as thymic malignancy: A case report with review of literature.
60	Paul Augustine	National Seminar on Phytochemistry: An emerging branch for the development of potential anticancer drugs	3 Sep 2015, Assumption College, Changanassery	Talk: Cancer: an overview.
61	Paul Augustine	International Seminar on Recent Biochemical Approaches in Therapeutics (RBAT-II)	9 Dec 2015, University of Kerala, Thiruvananthapuram	Talk: Therapeutic approach in breast cancer.
62	Paul Sebastian, Shaji Thomas, Balagopal PG, Bipin T. Varghese, Elizabeth M. Iype, Nebu Abraham George, Rexeena Bharagavan	CME on Endoscopic Skull Base Surgery	11-13 Oct 2015, SUT Hospital, Thiruvananthapuram	Delegates

63	Preethi Sara George	National Workshop on Refining skills in Oncology Nursing Research.	8-10 April 2015, Thiruvananthapuram	Talk: Parametric and non-parametric methods in statistics.
		International Association of Cancer Registry, Annual meeting	7-10 Oct 2015, Mumbai	Talk: 1. Geo-relationship between cancer cases and the environment in Trivandrum. 2. Assessment of completeness in Trivandrum cancer registry data: capture-recapture method.
		International Conference on statistics for 21 st century	17-19 Dec 2015, University of Kerala, Thiruvananthapuram	Talk: Geographic Information System (GIS) an effective tool for cancer control activities.
64	Preethi TR, Sindhu Nair P, Anila KR, Renu S, Jayasudha AV, Rari P. Mony	IAP – ID Annual Conference	3 Dec 2015, Le Meridian, Kochi	Delegates
65	Priyakumari T, Binitha R	INSIGHT 2015: 7 th Annual CME on Bone Tumours	21 June 2015, Thiruvananthapuram	Faculty
66	Priyakumari T	PHOCON 2015	21-22 Nov 2015, Pune	Delegate
67	Priyakumari T, Sheethal K, Jithin TK, Shwetha Seetharam	International CME on Lymphomas: Mysteries of the Lymph Node Revealed	9-10 Jan 2016 Thiruvananthapuram	Delegates
68	Priyakumari T	IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Chairperson : Pediatric oncology session.
69	Rachel Cherian Koshy	TRISZAC 2015: 31 st Annual South zone and 39 th Annual conference of Kerala Chapter of ISA	6-9 Aug 2015, Thiruvananthapuram	Talk: Anaesthesia for head and neck cancer surgery.
		South Zone Summit of All India Association of Practising Anaesthesiologists: Current Challenges in Anaesthesia	31 Jan 2016, Chennai	Delegate
70	Raghukumar P	National Symposium on OSLD in Advanced Radiotherapy Practice.	26 Sep 2015, KMIO, Bangalore	Delegate
		Workshop on Radiobiology and radiobiological modeling in RT	19 Nov 2015, RCC	Delegate
		36 th Annual Conference of Association of Medical Physicists of India	20-22 Nov 2015, Thiruvananthapuram	Delegate
71	Raghu Ram K.Nair, Raghukumar P, Saju B, Zhenia Gopalakrishnan, Debjani Phani, Shaiju VS, Sharika V.Menon	International Workshop On Precision Radiotherapy (IWPR)	12 Sep 2015, RCC	Delegates
72	Raghu Ram K.Nair	Workshop on Radiobiology and radiobiological modeling in RT	19 Nov 2015, RCC	Organising Chairman
		36 th Annual Conference of Association of Medical Physicists of India	20-22 Nov 2015, Thiruvananthapuram	Organising Chairman

73	Ramachandran K	Updates in Transplantation 2015 conducted by IRIA Kerala and IMA.	23 Aug 2015, Thiruvananthapuram	Delegate
		Hepatathlon 2015 mid term CME, IR & IA Kerala.	13 Sep 2015, Thiruvalla	Chaired a session
		G-RAD 2015: CME on Breast imaging	28 Oct 2015, Sree Gokulam Medical College, Thiruvananthapuram	Presented an overview of breast imaging.
		BISICON 2015: National conference of Breast Imaging Society of India.	13-15 Nov 2015, Bengaluru	Talk: Mammography: worked up cases.
		AMPICON 2015: 36 Annual Conference of Association of Medical Physicists of India.	20 – 22 Nov 2015, Regional Cancer Centre	Delegate
74	Ramadas K	AROICON 2015	26-29 Nov 2015, Lucknow	Faculty
		CME programme on Breast Cancer Management	6 Feb 2016, Ambillikai, Tamil Nadu	Faculty
75	Rani Chandra V	Training of Trainers of Nurses on Tuberculosis Under GFATM Round -7	14-16 Sep 2015, Gov. College of Nursing, Thiruvananthapuram	Delegate
76	Rema P	International Live Robotic Surgery workshop & Master class in gynecologic oncology	10-11 Sep 2015, Kochi	Delegate
		CME Session V	22 Nov 2015, Pushpagiri Medical College, Thiruvalla	Talk: 'Screening for cancer cervix & management of CIN'.
77	Renu S	APCON 2015: Annual Conference of IAPM	4-6 Dec 2015, Le Meridian, Kochi	Poster: Primary gastrointestinal lymphomas: Anatomical distribution and histological subtypes.
		International CME in Pathology, Histopathology and Cytopathology	4- 6 Feb 2016, Goa	Poster: Epidermodysplasiaverruciformis associated with T cell lymphoma, langerhans cell histiocytosis and squamous cell carcinoma.
		Quality Management Systems and Internal Audit in Medical Labs as per ISO 15189-2012	25- 28 Feb 2016, Pushpagiri Medical College Thiruvalla	Delegate
78	Rethi Devi GS	Training of Trainers of Nurses on Tuberculosis Under GFATM Round -7	21 -23 May 2015, Govt. College of Nursing, Thiruvananthapuram	Delegate
79	Ridukumar	Pediatric Solid Tumour Workshop	22-24 Apr 2015, Mumbai	Delegate
		ICON 2015: 33rd Meeting of the Indian Cooperative Oncology Network	4-6 Sept 2015, Coimbatore	Delegate
		Indian Society of Medical and Paediatric Oncology 2015 Meeting	6-8 Dec 2015, Mumbai	Posters: 1. The prognostic value of absolute lymphocyte and monocyte count and its ratio at diagnosis in Hodgkin's Lymphoma (hypothesis). 2. Clinical profile and treatment outcome of desmoplastic small round cell tumors: a single centre experience.
80	Rona Joseph, Jaisankar P, Ridukumar	Best of ASCO, 2015	27-28 Jun 2015, Hyderabad	Delegates

81	Rona Joseph	Indian Society of Medical and Paediatric Oncology 2015 Meeting	6-8 Dec 2015, Mumbai	Posters: 1. Clinical feature and treatment outcomes of acute erythroleukemia: A review of 27 patients. 2. Prognostic significance of myeloid antigene expression in ALL: A follow up study.
82	Roshni S	International Workshop On Precision Radiotherapy (IWPR)	12 Sep 2015, RCC	Chaired session on rectal cancer:
		Clinical Oncology 2015: State Conference of AROI Kerala Chapter	15 Nov 2015, Kottayam	Paper: Targeted therapy in metastatic colo-rectal cancers.
		FOCUS workshop at RCC	11 July 2015, Trivandrum	Paper: Lung carcinoma
		Annual Conference of Gastrosurgeons	20 Feb 2016, Kollam	Paper: Shortcourse Vs longcourse radiation in carcinoma rectum.
83	Sagila SG	Clinical and Diagnostic Mycology: Symposium and Workshop	6- 9 Aug 2015, St. Johns Medical College, Bangaluru	Delegate
		Viral infection: Current Scenario – CME	27 Feb 2016, Govt. Medical College, Thiruvananthapuram	Delegate
84	Sajeed A	International Workshop On Precision Radiotherapy (IWPR)	12 September 2015, RCC	Chaired session on Upper gastro-intestinal malignancies.
85	Saju B	Workshop on Radiobiology and radiobiological modeling in RT	19 Nov 2015, RCC	Organising Secretary
		36 th Annual Conference of Association of Medical Physicists of India	20-22 Nov 2015, Thiruvananthapuram	Organising Secretary
86	Shaiju VS	CME on Advanced Radiotherapy Techniques	6 Sep 2015, MCC, Thalassery	Talk: Advanced RT planning in head & neck cancers.
87	Shaji Thomas, Mira Sudam Wagh	Kerala Association of Surgical Oncology: CME on Gynaec Malignancies	18 Oct 2015, Malabar Cancer Centre, Thalassery	Delegates
88	Shaji Thomas	Trivandrum Plastic surgeons meet	12 Feb 2016, Thiruvananthapuram	Talk: Local flaps in head and neck reconstruction.
89	Sheethal K	PHOCON 2015	19-22 Nov 2015, Pune	Poster: Myeloid sarcoma: Clinicopathological analysis of 22 pediatric patients with myeloid sarcoma.
90	Shwetha Seetharam	PHOCON 2015	19-22 Nov 2015, Pune	Poster: Tumour lysis syndrome during induction chemotherapy in paediatric patients with acute lymphoblastic leukaemia.
		PHOCON 2015	19-22 Nov 2015, Pune	Poster: Hypertension during induction chemotherapy in pediatric patients with acute lymphoblastic leukemia.
		PHOCON 2015	19-22 Nov 2015, Pune	Poster: B Lymphoblastic lymphoma of the bone.
91	Sindhu Nair P, Anila KR, Renu S	IAPM Kerala Chapter Meeting	8 Aug 2015, Pushpagiri Medical College, Thiruvalla	Delegates

92	Sindhu Nair P	APCON 2015: Annual Conference of IAPM	4-6 Dec 2015, Le Meridian, Kochi	Poster: An analysis of cytology of germ cell tumors with histopathological and serum marker correlation: A tertiary care centre experience.
		MID PULMOCON 2015: Mid term Conference of Academy of Pulmonary and Critical Care Medicine	11 Oct 2015, CPCRI, Kasaragod	Delegate
		Symposium on Genomics in Diagnosis, Translational Research and Clinical Medicine	24 Feb 2016, National Institute of Advanced Studies, Bangaluru	Delegate
		Advisory Meeting on Cytogenetics, Genomics and FISH Assays in Oncology	25 Feb 2016, The Capitol Hotel, Bangaluru	Delegate
		Lung Cancer Diagnosis: Preceptorship Programme	18-19 Mar 2016, Christian Medical College, Vellore	Delegate
		IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Poster: Two interesting cases of lesions involving jawbones.
93	Sivanandan C D	International Workshop On Precision Radiotherapy (IWPR)	12 Sep 2015, RCC	Chaired session on rectal cancer.
94	Sobha S, Indu V S Ariya Sreedharan Bindhurani PV	Infection control: Clean hands, Stop germs	21 Nov 2015, KIMS	Delegates
95	Sophiya Lilly	4 th National Conference of Infusion Nurses Society India: Infusion safety: Setting standards for Excellence	30 -31 Sep 2015, National Library, Kolkata	Poster: Challenging IV therapy using double lumen central catheters.
96	Sreelekha R	17 th National Oncology Nursing Conference	05 - 07 Nov 2015, AIIMS Delhi	Talk: Newer diagnostic tests in cancer.
		Training for Nurses	25 Nov 2015, IMG Thiruvananthapuram	Talk: Quality assurance in nursing.
		Insights of Nursing profession	16 Jan 2016, Co-operative College of Nursing, Thiruvananthapuram	Talk: Quality patient care.
		National Oncology Nursing conference: Metamorphosis in cancer Care : A new paradigm for tomorrow cancer care	11-12 Mar 2016, Kochi	Talk: Safe handling of hazardous drug and medical surveillance.
97	Sreelekha TT	Recent Biochemical approaches in Therapeutics	9-11 Dec 2015, Thiruvananthapuram	Talk: Polysaccharide nanoconjugates for targeted drug delivery and imaging of cancer cells.
		28 th Kerala Science Congress	28-30 Jan 2016, Malappuram	Delegate
98	Suchetha S	International live Robotic work shop and Master class in Gynecological Oncology	Sep 2015, AIMS, Kochi	Faculty in tumor board on ovarian cancer.
		Kerala Association of Surgical Oncology: CME on Gynaec Malignancies	18 Oct 2015, Malabar Cancer Centre, Thalassery	Talk: Surgical staging cancer endometrium.
		AGOICON 2015 Live workshop and Conference	27-29 Nov 2015, Hyderabad	Panelist: Surgical complications of gynaec oncological surgeries: Open, laparoscopic and robotic. Poster: Pattern of lymphnode metastasis in endometrial cancer.
99	Sugeeth, Rakul Nambiar	An International Update on Multiple Myeloma and Chronic Lymphocytic Leukaemia.	October 2015, Mumbai	Delegates
100	Sujathan K	UGC sponsored National Seminar on advances in Biotechnology.	3 Jul 2015, SN College, Cherthala.	Talk: Cervical cancer: molecular biology, prevention and control.
		STTP on Recent Issues in Biomedical Research.	29 -31 Jul 2015, College of Engineering, Karunagapally	Talk: Recent trends in medical image analysis.

101	Sumod Mathew Koshiy	G-RAD 2015: CME on Breast Imaging	28 Oct 2015, Sree Gokulam Medical College, Thiruvananthapuram	Paper: Breast MR imaging.
		BISICON 2015, National conference of Breast Imaging Society of India.	13-15 Nov 2015, Bengaluru	Scientific Committee Chairperson Presented panel discussion on breast imaging: Radiology- Surgery co-operation.
		Alumni CME on Imaging Update: 2015	14 Nov 2015, KMC, Manipal	Talk: MRI of Breast
		IMSOS 2016: 2 nd Annual Conference of the Indian Musculoskeletal Society	11-13 Mar 2016, Kochi	Paper: Approach to bone tumours Organised CME on bone tumours: ORP meeting.
		35th Annual Conference IRIA Kerala Chapter	24-25 Mar 2016, Kannur	Talk: Breast imaging controversies.
102	Sunilkumar S	ISRT Jammu & Kashmir CME	28 July 2015, Srinagar	Paper: Radiobiology concepts.
		CME on Advanced Radiotherapy Techniques	6 Sep 2015, MCC, Thalassery	Paper: Improving RT treatment plan from image acquisition to treatment evaluation.
		2 nd National Conference of ISRT	25-26 Sep 2015, Govt. MCH, Chandigarh	Paper: Biological effects of ionising radiation on molecular and cellular levels.
103	Sunitha Kumari UP	ISRT National Conference	25-26 Sep 2015, Govt. MCH, Chandigarh	Paper: Role of CT simulator in radiotherapy treatment planning.
104	Susan Mathews	AROICON 2015	26-29 Nov 2015, Lucknow	Poster: Imaging in gynaecologic brachytherapy: lessons learned.
105	Swapna R. Nath	National workshop on Parasitology & CME on Parasitic diseases in India: Diagnosis and Prevention	1-2 May 2015, Kasturba Medical College, Manipal	Delegate
		Workshop on Article writing for Medical Microbiologists	17-18 Sep 2015, SCTIMST, Thiruvananthapuram	Delegate
		CME : Audits in Infection Prevention and Control	5-6 Feb 2016, Breach Candy Hospital, Mumbai	Delegate
106	Thayal Singh Elias, Zhenia Gopalakrishnan, Debjani Phani, Shaiju VS, Sarin B, Sharika V.Menon, Sunithakumari UP, Maheswari J, Jayasree CG, Sindhu SS, Premeela Devi T, Abhilash Sudh SS, Lal K Nair, Viddiul Latha P A, Rajesh PR, Sunil Kumar S	Workshop on Radiobiology and radiobiological modeling in RT	19 Nov 2015, RCC	Delegates

107	Thayal Singh Elias, Zhenia Gopalakrishnan, Debjani Phani, Shaiju VS, Sarin B, Sharika V.Menon, Sunithakumari UP, Maheswari J, Jayasree CG, Sindhu S S, Premeela Devi T, Abhilash Sudh SS, Lal K Nair, Viddiul Latha PA, Rajesh PR, Sunil Kumar S	36 th Annual Conference of Association of Medical Physicists of India	20-22 Nov 2015, Thiruvananthapuram	Delegates
108	Unnikrishnan BS	28 th Kerala Science Congress	28-30 Jan 2016, Malappuram	Paper: Development of galactoxyloglucan- imatinib mesylate nanoparticles with sustained drug release in leukaemia therapy.
109	Varun Rajan	ICON 2015: 33rd Meeting of the Indian Cooperative Oncology Network	4-6 Sep 2015, Coimbatore	Poster: A prospective study of NF- KB expression in multiple myeloma and its correlation with response to bortezomib (Hypothesis).
		Indian Society of Medical and Paediatric Oncology 2015 Meeting	6-8 Dec 2015, Mumbai	Poster: Rhabdomyosarcoma in adolescents and adults: Single centre experience.
110	Veena B Nair	28 th Kerala Science Congress	28-30 Jan 2016, Malappuram	Paper: Similar expression pattern of miRNA in cervical cancer cells irrespective of HPV infection type: a NGS approach.
111	Venugopal A	TRISZAC 2015: 31 st Annual South zone and 39 th Annual conference of Kerala Chapter of ISA	6-9 Aug 2015, Thiruvananthapuram	Moderator for three sessions Talk: Local anaesthetic systemic toxicity (LAST).
		ISAMIDCON 2016: Midterm CME and PG Quest organized by ISA Kerala State Chapter	13 Mar 2016, MOSC Medical College, Kolencherry	Faculty
112	Venugopal M	AROI State Chapter	30 Jan 2016, Kochi	Talk: Imaging in carcinoma larynx.
		CME programme on Breast Cancer Management	6 Feb 2016, Ambillikai, Tamil Nadu	Talk: Breast imaging.
		KREST PG Teaching Programme	12 Feb 2016, Kochi	TALK: Imaging in GIT malignancy.
		National Conference on breast cancer organized by the Department of Radiotherapy, Govt. Medical College, Thrissur and AROI, Kerala Chapter	13-14 Feb 2016, Thrissur	Talk: Recent advances in breast imaging.
113	Vijaya A K, Jaya T S	Competition Program Oncology Nurses Association of India	10 Apr 2015, TMH Mumbai	Delegates
114	Viji S. Pillai	AORA 2015: Regional Anaesthesia Conference	23-25 Sep 2015, Bangalore	Poster: Bilateral subcostal transversus abdominis plane block with IV sedation for feeding jujunostomy.
		In house BLS and ACLS Training for Doctors	2-4 Dec 2015, RCC	Organiser

115	Vishnu V	National Workshop on Refining Skills in Oncology Nursing Research	8-10 Apr 2015, RCC	Talk: 1.Using online databases. 2. Citation styles with special reference to APA style and Vancouver style.
		National Seminar on Teaching Role of Librarians	21-22 Aug 2015, Thrissur	Talk: Teacher librarian in the IT era.
		National Library Week: Librarians Meet	18 Nov 2015, Vikram Sarabhai Space Centre, Thiruvananthapuram	Delegate
		Health Infoscapes: Health information for the Librarians: Meeting of Kerala Library Association	12 Mar 2016, Thiruvananthapuram	Talk: Cancer Information on the Internet: trusted resources for the public
116	Zhenia Gopalakrishnan, Sharika V. Menon	Equal Estro AROI Teaching Course	6-9 Dec 2015, New Delhi	Delegates

ONGOING RESEARCH PROJECTS

EXTRAMURAL

Sl. No.	Principal Investigator	Project Title	Funded by	Status
BREAST				
1	Arun Peter Mathew	Effect of cancer associated fibroblasts on BRCA1 +/- breast cancer cells	Dept of Atomic Energy- Board of Studies in Nuclear Sciences (BRNS)	Ongoing
2	Arun Peter Mathew	Analysis of sweat proteome from breast cancer patients	AYUSH	Ongoing
3	Beela Sarah Mathew	Adjuvant Tamoxifen in breast cancer Longer Against Shorter (ATLAS).	Oxford University	Ongoing
4	Beela Sarah Mathew	Risk factors for breast cancer in India: an INDOX case-control study.	Oxford University	Completed
5	Ramadas K	Randomised controlled evaluation of clinical early detection in the control of breast cancer in low-and medium- resource settings.	IARC, Lyon, France	Ongoing
<i>Initiated in 2006; Total participants 146,602; Total Screened- 70,733; Breast cancers identified: Intervention arm - 195, Control arm - 150. 3rd round of screening is ongoing.</i>				
CHEST & GASTRO-INTESTINAL				
6	Chandramohan K	Resistance in colorectal cancer: Tumor stem like cells as unique targets in residual disease	DBT, Govt. of India	Ongoing
GYNAEC & GENITO-URINARY				
7	Rema P	MTA mediated invasion of stem like cells: implications in endometrial cancer.	Dept. of Biotechnology, Govt. of India	Ongoing
HEAD & NECK				
8	Bipin T.Varghese	Development of an indigenous voice prosthesis for rehabilitation of laryngectomees and its clinical evaluation	Kerala State Council For Science, Technology & Environment.	Ongoing
9	Paul Sebastian	Phase 2, double – blind, placebo controlled randomized study of sulindac, a pan – COX inhibitor in oral premalignant lesions.	Memorial Sloan Kettering Cancer Centre, New York	Completed
10	Paul Sebastian	Phase 3, 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
11	Ramadas K	Estimation of tobacco attributable mortality in Kerala.	IARC, Lyon, France	Ongoing
12	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	Ongoing
<i>850 patients have been recruited into the study. Subsites recruited include oropharynx, oral cavity, larynx and hypopharynx.</i>				
IMAGEOLOGY				
13	Ramachandran K	Development of CAD system for mammograms	Department of Electronics and Information Technology	Ongoing
PATHOLOGY				
14	Anitha Mathews	Galectin-3 Mediated Stem cell regulation in Triple Negative Breast Cancers.	KSCSTE, Govt. of Kerala	Ongoing
<i>Sample collection and experimental work of this project is on progress.</i>				
PAEDIATRIC ONCOLOGY				
15	Kusumakumary P	Multiplex Profiling of chromosomal translocations, mutations and MDR in leukemia cells and development of biomarkers for targeted personalized medicine.	Kerala State Council For Science, Technology & Environment.	Ongoing
CANCER EPIDEMIOLOGY				
16	Aleyamma Mathew	Population Based Cancer Registry, Thiruvananthapuram.	ICMR, Govt. of India	Ongoing

	<i>The average annual crude (CR) cancer incidence rates (per 10⁵) in Thiruvananthapuram district is 172.2 and 167.1 per 100,000 males and females respectively for the year 2014 in India. Lung (CR: 23.4), oral cavity (CR: 18) and prostate (CR:13) are the first three leading cancer sites among males. Breast (CR: 48), thyroid (CR: 18) and cervix uteri (CR: 10) are the corresponding cancer sites among females.</i>		
17	Paul Sebastian	Pattern of care and survival studies in cancers of cervix, female breast and head and neck.	ICMR, Govt. of India Ongoing
	<i>Computerized data of case-records with updated follow-up details on a total of 9130 female breast, 2578 cervix uteri and 14,063 head & neck cancer cases are available since the period 2006.</i>		
18	Paul Sebastian	Hospital-based cancer registry	Indian Council of Medical Research Ongoing
	<i>HBCR 2013 provided the magnitude, patterns of cancer, stage at diagnosis and treatment modalities of 14,185 patients (7023 males and 7162 females) reported at RCC. HBCR 2014 data entry has been continuing.</i>		
CANCER RESEARCH			
19	Kannan S	Biology of NFκB and STAT3 Transcription Factors in Oral Carcinogenesis	Kerala State Council for Science, Technology & Environment Ongoing
	<i>Oral cancer cell lines and normal human keratinocyte cell line (HaCaT) were propagated and maintained in our laboratory. Doubling time of all cell lines used in this study was calculated. All oral cancer cell lines are subjected to HPV detection by PCR using consensus primer pair MY09/MY11 of HPV L1 gene. Results showed that, all oral cancer cell line are HPV negative. mRNA and protein levels of NFκB (NFκB p50, NFκB p65 and IκB) and STAT3 transcription factors were measured by qRT-PCR and immunoblot respectively. Knockdown studies conducted by RNA interference technology showed that EGFR has the significant role in the expression regulation of NFκB and STAT3 transcription actors. Pilot studies on NFκB and STAT3 signalling pathways revealed the presence of molecular crosstalk between these two pathways.</i>		
20	Kannan S	MicroRNA expression pattern in carcinoma of the uterine cervix in relation to HPV infection status.	Dept of Atomic Energy- Board of Studies in Nuclear Sciences (BRNS) Ongoing
	<i>Present study standardized a known sensitive HPV DNA test based on Polymerase Chain Reaction (PCR) and able to detect almost all clinically relevant types of HPV infection. MicroRNA (miRNA) profiling through small RNA sequencing revealed that the HPV negative cervical cancer cases have a distinct miRNA expression pattern compared to HPV positive cervical cancer. MiRNA expression pattern of different HPV positive cervical cancer showed a distinct pattern however pathway analysis showed that these altered miRNAs are involved in similar signaling pathways suggesting the carcinogenic mechanism may be similar irrespective of HPV infection types. miRNA microarray data indicated a significant deregulation of a subset of miRNAs cervical cancer tissue specimens compared to normal cervical tissue specimens. These significantly altered miRNAs were validated through quantitative real time PCR. Thus a miRNA signature for cervical cancer has been formulated. Further studies on the biological significance of this miRNA signature for cervical cancer are progressing.</i>		
21	Sujathan K	CerviSCAN: Image analysis for reliable and cost effective cancer detection.	Swedish Research Link, Govt. of Sweden. Ongoing
	<i>This is a collaborative project of RCC, CDAC-TVM and Uppsala University, Sweden which aims to facilitate exchange of knowledge and information on how to best address remaining issues and to adjust to requirements of end users, and to bring the semi-automated system we developed for computerized Pap smear screening into its final goal of accessible, efficient and cheap cancer diagnostics in low income and rural environment. We will evaluate the possibility of using Fourier ptychography, to increase the imaging efficiency when extracting crucial information from the cell nuclei. Sample collection for this work is on progress.</i>		
22	Sujathan K	Study of the significance of DNA replication licensing proteins as markers of lung cancer and its precursors.	DBT, Govt. of India Ongoing
	<i>We have identified a robust technique for the routine laboratory processing of sputum samples so that the whole cell content can be fished out without any morphological changes. The cell block technique will be useful for preserving cells for further molecular analysis. Also protein and DNA can easily be extracted from these cells which can be used for mutation analysis. We have demonstrated immunocytochemistry in sputum cell blocks as well as in monolayered smears and characterized malignant and premalignant cells with DNA replication licensing proteins. Identification of differential diagnostic markers of lung adenocarcinoma in sputum samples is in progress.</i>		
23	Sujathan K	Evaluation of spice extracts for anticancer effect in relation to telomerase activity.	Spices Board Ongoing
	<i>It is a collaborative project of Indian Institute of Spices Research and RCC. Identification of telomerase inhibitors in major spice phytochemicals by in silico method and evaluation of the cytotoxicity, growth kinetics telomerase activity and other cytopathic events in different tumor cell lines treated with these phytochemicals is the main objective of the project. Cytotoxicity was observed for the Hexane extract of Cinnamom verum on colon cancer cells on a dose dependent manner but it didn't show any cytotoxicity in ER, PR negative and Her2 positive breast cancer cells.</i>		
24	Lakshmi S	Isolation and characterization of primary tumor cells for screening of anacardic acid derivatives on the regulation of MMP and EGF pathways.	Amrita School of Biotechnology Ongoing
	<i>Primary cell culture is being carried out for development of cell line from breast tumors. Effect of anacardic acid was evaluated in breast cancer cell lines for cytotoxicity and apoptosis.</i>		

25	Lakshmi S	Implications of mdrl gene polymorphisms and p-glycoprotein expression in ovarian cancer in relation to treatment response	Dept of Atomic Energy- Board of Studies in Nuclear Sciences (BRNS)	Completed
26	Hariharan S	Molecular genetic basis of resistance to imatinib treatment in CML	Kerala State Council for Science, Technology & Environment	Completed
COMMUNITY ONCOLOGY				
27	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
28	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
<i>As part of the community based cluster randomized controlled trial in connection with the Trivandrum Breast Cancer Screening project, cervical cancer screening using VIA,VILI is being conducted in the control group of the study areas.</i>				
29	Gigi Thomas	Search for predictive genetic markers of high-risk malignant transformation potential in oral leukoplakia patients.	Kerala State Council for Science, Technology and Environment, Govt. of Kerala	Completed
30	Gigi Thomas	A multi-centre phase II randomised double-blind placebo efficacy and safety of Curcumin in oral premalignant lesions	Dept. Biotechnology, Govt. of India	Completed
31	Gigi Thomas	Estimation of tobacco attributable mortality in Kerala	IARC, Lyon, France	Ongoing
NATURAL BACKGROUND RADIATION CANCER REGISTRY				
32	Paul Sebastian	India- Japan Co-operative Research Programmes on Health effects of natural radiation in Karunagapally, Kerala	Health Research Foundation, Japan	Ongoing
<i>The project is continuing with the aim of estimating the health effects of natural radiation in High Background Radiation area (HBRA) Karunagapally, Kerala. Studies concentrating mainly on cancer, Non-cancerous diseases, dose measurements and biological parameters covering the cohort of 4 lakhs population.</i>				
33	Raghu Ram K. Nair	Natural Background Radiation Registry (NBRR): Individual & ingested dose estimation	Health Research Foundation, Japan	Ongoing
<i>Diet samples were collected from different areas in High Background Radiation and Normal Background Radiation areas. These are being ashed and being analysed for finding out the levels of Th,U and K</i>				
34	Jayalekshmi P	Radiation Epidemiologic studies, Karunagapally, Kerala, India.	Health Research Foundation, Japan	Ongoing
<i>Follow up of the residents of HBRA. Migration, Mortality and Cancer Incidence survey undertaken covering 4 lakhs population periodically.</i>				
35	Paul Sebastian	Prevalence of cataract in HBRA, Karunagapally	Health Research Foundation, Japan	Ongoing
<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>				
36	Paul Sebastian	Prevalence of Atherosclerosis in HBRA, Karunagapally	Health Research Foundation, Japan	Ongoing
<i>Biochemical investigations (350 Nos.) and IMT of carotid arteries in the residents of radiation area for assessing the prevalence of atherosclerosis undertaken. Analysis ongoing.</i>				
37	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>Unstable chromosome abnormalities were analyzed in subjects living in HBR areas of Karunagapally taluk. The abnormalities were compared with that of normal areas. We found that there is increases of abnormalities were noted in the HBRA. There is an association between cumulative dose and chromosomal abnormalities.</i>				
38	Hariharan S	Search for a molecular signature of thyroid tumours occurring in people living in high background radiation area (HBRA), Karunagapally, Kerala, India.	Health Research Foundation, Japan	Ongoing
<i>The main objective of the study is to compare the molecular signatures of ca thyroid patients inhabiting in HBRA and normal areas. For this we had collected 5 tumour tissues from the patients of HBRA and five from normal areas. RNA was isolated and microarray analysis carried out, raw data was generated and the analysis could be done.</i>				

OTHER FUNDED PROJECTS

Sl. No.	Principal Investigator	Project title	Funded by	Status
CANCER EPIDEMIOLOGY				
1	Kalavathy MC	Cancer Control Programme in Upputhara Grama Panchayat, Idukki district.	Upputhara Grama Panchayat	Ongoing
	<i>Four detection programmes were conducted in different areas of the Panchayat, screened 403 persons detected 2 oral cancers, 2 breast cancers and 2 cervical cancers.</i>			
2	Kalavathy MC	Cervical Cancer Control Programme in Pathanapuram Grama Panchayat	Pathanapuram Grama Panchayat	Ongoing
	<i>Two cancer detection campaigns were conducted in Pathanapuram PHC and 2 other areas of the panchayat utilizing the service of trained field health service staff, detected 1 cervical, 1 Thyroid, 1 breast and 2 oral cancers.</i>			
3	Kalavathy MC	Hospital Based Cervical Cancer Screening Programmes.	Govt. Women & Children Hospital and Peroorkada Govt. Hospital, Thiruvananthapuram	Ongoing
	<i>These programmes are ongoing since 2008. Regular Pap-smear clinics twice a week in W&C Hospital and once in a month in Govt. Hospital, Peroorkada.</i>			
COMMUNITY ONCOLOGY				
4	Jayakrishnan R	School based programmes against tobacco and alcohol consumption in high school/higher secondary schools of rural Kerala.	State Health Systems Resource Centre, Kerala	Ongoing
5	Sreekumar C	Prevention and control of cancer among the tribal population of Kerala state.	Kerala State Development Corporation for SC & ST	Ongoing
6	Sreekumar C	Cancer control programmes in Palakkad district.	Kerala State Development Corporation for SC & ST	Completed
NATURAL BACKGROUND RADIATION CANCER REGISTRY				
7	Jayalekshmi P	Prevention & cancer control among scheduled caste people	Jilla Panchayat, Kollam	Ongoing
	<i>Camp conducted in colonies of Scheduled caste people. In 62 camps, 2047 persons examined: cancer detected 5 and pre-cancerous conditions of oral cavity 156 and cervix 19.</i>			
8	Jayalekshmi P	Cancer detection and cancer patients service projects	Grama Block Panchayats Karunagapally Taluk	Ongoing
	<i>Cancer patients were supported by welfare programmes undertaken as part of the project. Cancer detection and awareness programmes conducted in all panchayats benefitted in motivating the people for participating in cancer control activities. 3308 subjects were screened for cancer detection</i>			
9	Paul Sebastian	District Cancer Registry	ICMR, Govt. of India	Ongoing
	<i>District Cancer Registry covers the entire population of Kollam District. Registry aims to provide incidence and pattern of Kollam District. 3200 incident cancer cases & 1510 mortality cases registered during 2015. The major sites among males are lung and mouth and among females breast and thyroid.</i>			

PHARMA/INDUSTRY SPONSORED

Sl. No.	Principal Investigator	Project title	Funded by	Status
BREAST				
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	9 patients randomized, 7 patients are on follow up and 2 patients died
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	Follow-up phase 8 patients randomized, one patient on follow up and 7 patients died
3	Rajeev KR	A Phase II Open-label Randomized Study of a Fixed-dose Combination of Capecitabine and Cyclophosphamide Administered at Different Doses/Regimens with Metronomic Schedule in Patients with Metastatic Breast Cancer.	Sanofi	Ongoing
CHEST & GASTRO-INTESTINAL				
4	Sajeed A	BEVZ92-A-01-13: Open label randomized bio-equivalence study to evaluate the pharmacokinetic (PK) and safety profile of Bevacizumab Biosimilar (BEVZ92) in combination with FOLFOX or FOLFIRI versus Bevacizumab (AVASTIN*) in combination with FOLFOX or FOLFIRI as first-line treatment in patients with metastatic colorectal cancer (mCRC).	mAbxience Uruguay	Ongoing
5	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
6	Sivanandan CD	Multicentric, randomised, double blind, phase III trial to investigate the efficacy and safety of oral BIBF 1120 plus standard Docetaxel therapy compared to placebo plus standard Docetaxel therapy in patients with stage IIIB/IV or recurrent non small cell lung cancer after failure of first line chemotherapy.	Boehringer Ingelheim	Completed. Analysis results awaited
7	Sivanandan CD	Phase II study of Cancer patients failing prior therapies (GIST, NSCLC, Colon & pancreatic cancer)	NATCO pharma Limited	Ongoing
8	Sivanandan CD	BMI00-CC-03-1-01:A Double blind, Randomized, Active controlled, Parallel Design, Comparative PK, Efficacy, Safety and immunogenicity study of Bmab 100 and Avastin®, both in combination with XELOX chemotherapy, in patients with Metastatic colorectal cancer.	Biocon research LTD	Ongoing
GYNAEC & GENITO-URINARY				
9	Jayaprakash PG	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

10	Jayaprakash PG	An open-label, multicentre study to assess the safety of RO5185426 in patients with metastatic melanoma.	Roche	Ongoing
11	Jayaprakash PG	An open-label, single-arm, multicenter, phase IV Trial to evaluate the safety of Firmagon in androgen deprivation therapy in Indian patients diagnosed with advanced hormone –dependent prostate cancer	Ferring Pharmaceuticals Pvt. Ltd	Ongoing
12	Francis V. James	Multicentre, single arm, open label, non controlled phase 4 clinical trial to evaluate safety of cabazitaxel (Jevtana) in combination with oral prednisone (or prednisolone) for the treatment of patient with metastatic hormone refractory prostate cancer previously treated with docetaxel - containing regimen.	Sanofi Aventis	Ongoing
HAEMATOLOGICAL, LYMPHOGENIC, BONE & SOFT TISSUE				
13	Geetha N	A phase II study of dasatinib therapy in children and adolescents with newly diagnosed chronic phase chronic myelogenous leukemia or with Ph+ leukemias resistant or intolerant to imatinib.	Bristol Myers Squibb	Ongoing
14	Sreejith G. 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
HEAD & NECK				
15	Rejnish Kumar R	A phase II, multicenter; randomized, double blind, placebo controlled study novartis ongoing, recruitment open assessing the efficacy of buparlisib (bkm120) plus paclitaxel vs. placebo plus paclitaxel in patients with platinum pre-treated recurrent or metastatic head and neck squamous cell carcinoma.	Novartis	Recruitment closed, study is ongoing.
16	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	Ongoing
<p><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></p>				

IN-HOUSE PROJECTS

Sl. No.	Principal Investigator	Project title	Status
ANAESTHESIOLOGY			
1	Rachel Cherian Koshy	A prospective observational study on post-operative delirium and its asso: with intraoperative blood pressure fluctuation in elderly undergoing oncosurgery.	Ongoing
2	Rachel Cherian Koshy	Post-operative pain in oncosurgical cases:A prospective observational study.	Ongoing
3	Mary Thomas	The Effect of preoperative anxiety and depression on poster operative pain in breast cancer surgery.	Ongoing
4	Mary Thomas	Evaluation of effectiveness of modified PEC II block for post operative pain relief after breast surgery.	Ongoing
5	Mary Thomas	Validation of height to thyromental distance to predict difficult intubation and compare with other predictors of difficult intubation.	Completed
6	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
7	Venugopal A	A comparative study of lignocaine and ondansetron as pretreatment to prevent pain on injection of propofol.	Completed
8	Venugopal A	Direct laryngoscopy versus video laryngoscopy for expected difficult tracheal intubation: A prospective observational study	
9	Mallika Balakrishnan	Incidence and predictors of difficult and impossible mask ventilation.	Ongoing
10	Mallika Balakrishnan	Effect of pre-operative warming on post indication core temperature and incidence of post-operative shivering in patients undergoing general anaesthesia.	Ongoing
11	Viji S. Pillai	Setting up of Malignant Hyperthermia Help Centre at RCC, TVPM.	Ongoing
12	Viji S. Pillai	A prospective observational study on relevance of routine pre operative investigations.	Ongoing
13	Sudha P	Routine TSH estimation in preanaesthetic workup for cancer surgeries-identifying the relevance.	Ongoing
14	Sudha P	Comparison of total intravenous anaesthesia using propofol and inhalational anaesthesia using isoflurane and nitrous oxide for controlled hypotension in head and neck oncosurgeries.	Ongoing
15	Sudha P	A prospective observational study on the predictability of postoperative nausea and vomiting in patients undergoing oncosurgeries under general anaesthesia.	Ongoing
16	Subha R	Perioperative transfusion of blood and blood products in patients undergoing cancer surgery: a prospective analysis.	Ongoing
17	Bhagyalekshmi R	A prospective observational study to identify the incidence and predictors of major perioperative adverse cardiovascular events in major oncological surgeries.	Ongoing
18	Bhagyalekshmi R	Retrospective Audit to identify that predictive value of preoperative lab testing and pre-anaesthetic consultation in elderly patients undergoing major oncological surgeries.	Ongoing
BREAST & CENTRAL NERVOUS SYSTEM			
19	Iqbal Ahamed M	Correlation of Ki67 Index with clinical and pathological variables in breast cancer.	Ongoing
20	Beela Sarah Mathew	Outcomes of the Treatment of Stage I-III HER2 Positive Breast Cancers at Regional Cancer Centre, Thiruvananthapuram.	Ongoing
21	Beela Sarah Mathew	Impact of subventricular zone (SVZ) irradiation on outcome of patients with glioblastoma multiforme.	Completed
22	Beela Sarah Mathew	Comparison of outcome after breast conservation therapy and modified radical mastectomy in women with pT1-2, N0 triple negative breast cancer: a retrospective study.	Completed
23	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.	Ongoing

24	Arun Peter Mathew	A randomized controlled trial comparing ultrasonic dissection with electrocautery for axillary dissection.	Ongoing
25	Madhu Muralee	Validation of "NEO!ADJUVANT" and study on the incidence and predictors of cCR and pCR in patients undergoing surgery for breast cancer after neoadjuvant chemotherapy.	Ongoing
26	Asha Arjunan	Observational analysis of clinical profile and treatment outcome of newly diagnosed GBM patients.	Ongoing
27	Kurian Cherian	Quality of life post breast cancer surgery comparison between BCS and MRM.	Ongoing
CHEST & GASTRO-INTESTINAL			
28	Iqbal Ahamed M	Quality of life after gastrectomy for gastric carcinoma.	Ongoing
29	Chandramohan K	Immunological assessment in laparoscopy versus open colorectal surgery.	Ongoing
30	Chandramohan K	Translation and Validation of EORTC QLQ OES 18 and OG25 Malayalam version in esophageal cancers.	Ongoing
31	Sivanandan CD	3D CRT as adjuvant treatment for gastroesophageal junction and stomach cancer: an observational study on the toxicity and dosimetric comparison of 3DCRT and IMRT plans.	Completed
Patents accrued – 20; Completed planned RT: 100%; Completed planned chemo : 40%. Median followup 17m. Overall survival 95% at 6m and 75% at 1 year. IMRT results in better PTV coverage and lower liver heart and bowel dose, but higher dose to kidneys and spinal cord.			
32	Sivanandan CD	Retrospective comparison of post operative adjuvant chemo-radiation versus peri-operative chemotherapy protocol in adenocarcinoma of stomach and gastro-esophageal junction in terms of clinical outcome.	Ongoing
33	Sivanandan CD	Short course preoperative radiotherapy for operable adenocarcinoma rectum: A prospective observational study.	Ongoing
34	Kurian Cherian	Post operative morbidity and mortality in rectal cancer: A prospective descriptive study in a tertiary cancer centre.	Ongoing
35	Madhu Muralee	Prevalence and predictors of apical lymph node involvement in locally advanced rectal cancers in the era of combined modality therapy.	Ongoing
36	Madhu Muralee	Prevalence and predictors of apical lymphnode involvement in locally advanced rectal cancers in the era of neoadjuvant chemoradiotherapy.	Ongoing
37	Sajeed A	Treatment outcome of limited stage small cell lung carcinoma patients treated with radical chemoradiotherapy: prospective observational study.	Ongoing
38	Sajeed A	Analysis of toxicity, compliance and outcome of definitive chemoradiation in squamous cell carcinoma of the esophagus: a prospective observational study (MD Thesis)	Completed
Patients : 30; Compliance to RT: 100%; Compliance to Chemo: 73%; Median followup: 8m; Overall survival at 6m and 1yr is 93.9% and 66.7% respectively. Tumor is prognostic factor for overall survival.			
39	Roshni S	Evaluation of treatment outcome and acute toxicity in patients undergoing adjuvant therapy in ductal carcinoma of pancreas.	Ongoing Accrued 8 pts
40	Roshni S	Demographic profile of lung cancer.	Ongoing
To study the demographic and clinic pathological profile and Lung cancer patients registering in thoracic oncology service of tertiary referral cancer centre (RCC). This is performed as prospective observational study.			
GYNAEC & GENITO-URINARY			
41	Francis V. James	Inflammatory markers in Cancer cervix	Ongoing
42	Rema P	Validation of laparoscopy based score for predicting surgical outcome in patients undergoing interval debulking for advanced ovarian carcinoma.	Ongoing
43	Rema P	Study of postoperative morbidity after cytoreductive surgery for ovarian cancer.	Ongoing
44	Rema P	Pelvic exenterations for recurrent cancer cervix: Survival outcome and morbidity.	Ongoing
45	Rema P	The role of clinical evaluation, CT scan and CA 125 in predicting optimal cytoreduction in advanced ovarian cancer/primary peritoneal cancer/fallopian tube cancer patients undergoing interval cytoreduction.	Ongoing
46	Suchetha S	A prospective randomized controlled trial investigating the role of subcutaneous suction drain in the prevention of superficial surgical site infections following midline laparotomy in gynecological oncosurgery.	Ongoing

HAEMATOLOGICAL & LYMPHORETICULAR			
47	Geetha N	The prognostic significance of absolute lymphocyte and monocyte count and the lymphocyte to monocyte ratio at diagnosis in patients with classical Hodgkin's lymphoma: A follow up study.	Ongoing
48	Geetha N	A prospective study of NF-KB expression in multiple myeloma and its correlation with response to bortezomib.	Ongoing
49	Geetha N	The prognostic significance of absolute lymphocyte and monocyte count and the lymphocyte to monocyte ratio at diagnosis in patients with non Hodgkin's lymphoma: A follow up study.	Ongoing
50	Geetha N	P-glycoprotein expression in newly diagnosed Acute myeloid leukemia in adults and its impact on treatment outcome	Ongoing
51	Geetha N	The prognostic significance myeloid antigen coexpression in adult acute lymphoblastic leukemia:A follow up study.	Ongoing
52	Geetha N	FLT3 mutation and its prognostic significance in newly diagnosed Acute myeloid leukemia in adult (Prospective study).	Ongoing
53	Geetha N	Correlation of BCR-ABL I transcript levels at 3 rd month with subsequent cytogenetic response in chronic myeloid leukemia patient in chronic phase treated with imatinib negative.	Ongoing
54	Geetha N	Cytogenetic abnormalities and risk stratification of multiple myeloma patients by 'FISH' technique.	Ongoing
HEAD & NECK			
55	Paul Sebastian	Morbidity Associated with neck dissection in oral cavity cancers.	Ongoing
56	Paul Sebastian	Systemic inflammatory prognostic markers of oral squamous cell carcinoma.	Ongoing
57	Ramadas K	Frequency of human papillomavirus nfection in oral squamous cell carcinoma and its clinical significance:A retrospective study.	Ongoing
<i>100 HPV positive patients have been included and is being followed up so far.</i>			
58	Rejnish Kumar R	Molecular dynamics of epstein barr virus in carcinoma nasopharynx.	Ongoing
<i>15 patients recruited into the study</i>			
59	Rejnish Kumar R	Prospective evaluation of dosimetric parameters, acute toxicities and quality of life in patients undergoing IMRT for carcinoma nasopharynx.	Ongoing
<i>Recruitment completed. 20 patients included in the study. Dosimetric analysis and followup is going on.</i>			
60	Kainickal CT	Prospective evaluation of toxicities and quality of life in patients undergoing post-op chemoradiation for head and neck cancers.	Ongoing
<i>23 patients have been included into the study.</i>			
61	Shaji Thomas	Prospective evaluation of transoral laser in T1,T2 Malignancies and potentially malignant lesion.	Ongoing
62	Shaji Thomas	A prospective observational study of outcome of supraclavicular flap in reconstruction of head and neck oncologic defects.	Ongoing
63	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
64	Bipin T.Varghese	Matched pair analysis of outcomes of conventional versus microvascular reconstruction in head and neck cancers.	Ongoing
65	Bipin T.Varghese	Salivary neoplasms: therapeutic and functional outcome : a retrospective study	Ongoing
66	Balagopal PG	Pattern of post-operative infection among head and neck cancer patients : a retrospective analysis.	ongoing
67	Balagopal PG	Reasons for loss of follow up in patients who underwent surgery for head and neck cancers: a retrospective analysis.	ongoing
68	Balagopal PG	Reasons for the delay in diagnosis and treatment for head and neck cancers: a retrospective analysis.	ongoing
69	Elizabeth Mathew lype	Evaluation of outcome and the incidence of laryngoesophageal dysfunction in T3 laryngeal and hypopharyngeal malignancies treated by chemoradiation.	Ongoing
70	Elizabeth Mathew lype	Hypoxia inducible factor; HIF- 1alpha expression as an indicator of clinical profile, tumour characteristics and locoregional control in squamous cell carcinoma of the tongue.	Ongoing

71	Nebu Abraham George	Role of post thyroidectomy serum parathormone and serum calcium levels in predicting long term hypocalcaemia.	Ongoing
IMAGEOLOGY			
72	Anil Prahlanan	Design and development of algorithms for brain tumor and edema segmentation in biomedical images.	Ongoing
PAEDIATRIC ONCOLOGY			
73	Kusumakumary P	Profile of infections during induction chemotherapy in children with ALL.	Ongoing
74	Kusumakumary P	Troponin I to detect early anthracycline induced cardiomyopathy in children with acute leukemia.	Ongoing
75	Priyakumari T	Loss of protective Anti HbS antibodies and seroconversion to Hepatitis B vaccination in children during chemotherapy for acute lymphoblastic leukemia.	Ongoing
76	Priyakumari T	Pediatric acute myeloid leukemia : clinicopathological profile and treatment outcome.	Ongoing
77	Priyakumari T	Detection of metabolic syndrome during treatment for acute lymphoblastic leukemia in children.	Ongoing
78	Priyakumari T	Metabolic emergencies during induction chemotherapy in pediatric patients with acute lymphoblastic leukemia.	Ongoing
CANCER EPIDEMIOLOGY			
79	Aleyamma Mathew	Association between dietary fat intake and prostate cancer: a meta-analysis.	Ongoing
80	Aleyamma Mathew	Association between red meat intake and colorectal cancer: a meta-analysis.	Ongoing
81	Preethi Sara George	Application of bootstrapping in interval estimation of cancer data.	Ongoing
82	Jagathnath Krishna KM	Association between diet and bladder cancer: principal component analysis	Ongoing
83	Jagathnath Krishna KM	Best fit distribution of cancer survival data.	Ongoing
84	Jagathnath Krishna KM	Cancer survival estimates due to non-uniform loss to follow-up and non-proportional hazards.	Ongoing
PATHOLOGY			
85	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.	Ongoing
86	Rekha A Nair	Utility of SOX11 expression in the diagnosis of mantle cell lymphoma.	Ongoing
87	Anitha Mathews	Comparison of expression pattern of HR and HER2/neu protein in primary breast carcinoma and synchronous LN metastasis.	Ongoing
88	Anitha Mathews	Pathological response to neo adjuvant chemotherapy and related changes in patients with carcinoma breast.	Ongoing
89	Nileena Nayak	Diagnostic efficiency of cell block preparation obtained through guided FNA in comparison with conventional cytology alone and core needle biopsy.	Ongoing
90	Anila KR	Rapid on-site evaluation for assessing adequacy of CT-guided fine needle aspiration sample: A pilot study.	Ongoing
91	Preethi TR	Clinicopathological analysis of serous borderline tumours and low grade serous carcinomas of ovary: A retrospective study.	Ongoing
RADIATION PHYSICS			
92	Thayal Singh Elias	Development of teletherapy calculation, radiotherapy patient management and record and verify software system for teletherapy treatments.	Ongoing
<p><i>A calculation software is developed for use in teletherapy. This software records the details of the treatment parameters, patient demography, etc. A search facility is provided to evaluate the treatment outcome. Appointment for treatments and treatment planning can be given. This can provide online patient treatment status in each teletherapy machine in the Dept. It can be used by the Radiation Oncologist and Physicist for better patient management.</i></p>			

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Administration, Standing Committees & Right to Information

a. ADMINISTRATION

Director : Dr. Paul Sebastian
 Additional Director (Academic) : Dr. P Kusumakumary
 Medical Superintendent : Dr. K Ramadas
 Deputy Medical Superintendent : Dr. Aswin Kumar



b. STAFF STRENGTH

Type of Staff	Permanent		Temporary	Daily wages	Deputation		Consultants engaged	Total
	Existing	New Recruits			In	Out		
Academic	104	18	1	4	127
Non-Academic	630	102	32	82	3	1	4	846
Total	734	120	33	82	3	1	8	973

c. ACADEMIC STAFF STRENGTH

Professors-15, Additional Professors-35, Associate Professors-17, Assistant Professors-44, Lecturers-1

d. NON-ACADEMIC STAFF

Administrative Office

Anil Kumar V (Sri) Senior Administrative Officer
 Lalitha B (Smt) Asst. Admin Officer Gr. I
 Jumailathu Beevi K M (Smt) Office Asst. Sel.Gr
 Snehalatha H B (Smt) Office Asst. Sel.Gr
 Vijayan S (Sri) Office Assistant Sr Gr.
 Kalpana Soni S (Smt) Office Assistant
 Seethalakshmi P S (Smt) Despatcher
 Devaraja Panicker K (Sri) Senior Helper
 Balachandran L (Sri) Senior Helper
 Suliman S (Sri) Hospital Attender

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

Cancer Epidemiology & Bio-statistics

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

Cancer Research

Sreelekha T T (Dr) Scientific Officer Gr. I
 (till 6.5.14)
 Hareendran N K (Sri) Research Assistant Gr. I
 Vikraman Nair K (Sri) Senior Animal House Keeper
 Sreekumaran Nair P (Sri) Driver Sr:Gr.

Clinical Laboratory

Thomas Abraham (Dr) Scientific Officer Gr. I
 Gangadevi C (Smt) Technical Officer (Lab)

Clinical Services & Medical Records

Chandrika D (Smt) Medical Records Officer Gr. I
 Sreekumar B (Sri) Asst. Admn. Officer
 Ambily O (Smt) Clerk Gr. I
 Anil Kumar K (Sri) Clerk (MRT) Gr. I
 Geetha O (Smt) Clerk Gr. I
 John S (Sri) Clerk (MRT) Gr. I
 Jaya Kumar P (Sri) Clerk Gr. I
 Kumari Bindu P K (Smt) Clerk Gr. I

Mariamamma M A (Smt)	Clerk Sr. Gr.
Pradeep Kumar B (Sri)	Clerk Gr. I
Siju R. Nair (Smt)	Clerk Sr. Gr.
Sreelatha S (Smt)	Clerk Sr. Gr.
Thankamony Amma P (Smt)	Clerk Gr. I
Nikhil S Baiju (Sri)	Clerk
Padmarajan R (Sri)	Typist
Sherly K Ninan (Smt)	Data Entry Operator Gr. I
Girija R (Smt)	Clerk (MRT)
Bindu Sadasivan (Smt)	Clinical Records Assistant
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
Jayalekshmi P (Smt)	Coding Clerk
Sasidharan Nair N (Sri)	Driver Sel.Gr.
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)	Senior Helper
Mariyamma Varghese (Smt)	Senior Helper
Jayasree R (Smt)	Helper
Amrithamma M (Smt)	Hospital Assistant
Sivankutty K (Sri)	Hospital Assistant
Hari C (Sri)	Dark Room Asst. Gr. I

Community Oncology

Sreekumar C (Sri)	Social Investigator Sr.Gr.
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)
Radha C (Smt)	Cytotechnologist Sr.Gr.
Lijo TV (Sri)	Lab. Technician Sr.Gr.
Renjini Thomas (Smt)	Lab. Technician Sr.Gr.
Ambika T B (Smt)	Staff Nurse Sr. Gr.

Gracy George (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
Nirmala K C (Smt)	Staff Nurse Gr. I
Abdul Rahiman P M (Sri)	Senior Helper

Engineering Wing

Alex Varghese (Sri)	Asst. Ex. Engineer (Civil)
Rajendran K R (Sri)	Supervisor (Electrical) Sr.Gr.
Santhosh Kumar A R (Sri)	Supervisor (Electrical) Sr.Gr.
Venugopalan Nair V R (Sri)	Supervisor (Electrical)
Giji P S (Sri)	Supervisor (Electrical)
Jayakumar P (Sri)	Electrician Gr.I
Rajmohan M B (Sri)	Electrician Gr.I
Suresh Kumar G (Sri)	Electrician
Sunil Kumar R (Sri)	Electrician
Deepu S S (Sri)	Electrician
Sivarajan L (Sri)	Electronic Technician Sr.Gr.
Jayanthy J K (Smt)	Data Entry Operator Sr.Gr.
Jayabalan Nair B (Sri)	Plumber Gr. I
Shalin Raj R (Sri)	Plumber
Rajan P C (Sri)	Senior Helper
Sanjayan S (Sri)	Plumber

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 Gr.I
Saraladevi P G (Smt)	Asst. Accounts Officer
Johnson X (Sri)	Cashier Cum Receptionist Sr.Gr.
Sheela Kumari R (Smt)	Cashier Sel.Gr.
Sheena Saju	Cashier
Remila C K (Smt)	Office Assistant Sel.Gr.
Girija Kumari L S (Smt)	Office Assistant Sr.Gr.
Mallika Devi S (Smt)	Senior Personal Assistant
Ajitha O S (Smt)	Office Assistant Sr. Gr.
Veena C L (Smt)	Office Assistant Sr. Gr.
Shajkumar K R (Sri)	Office Assistant Sr. Gr.
John Joseph (Sri)	Office Assistant Gr. I
Sheeja S.S. (Smt)	Office Assistant
Usha V (Smt)	Data Entry Operator Sr.Gr.

Prabhavathi Devi AK (Smt) Clerk Gr. I
Ambili S (Smt) Clin Records Asst.

Imageology

Asha S (Smt) Radiation Technologist
Binoy B G (Sri) Radiation Technologist
Jayakumar P (Smt) Radiation Technologist
Joe D'cruz A (Sri) Technical Officer (Radiation)
Savithri Amma B (Smt) Junior Personal Assistant
Pradeep S (Sri) Technical Officer (Radiation)
Prasad P P (Sri) Technical Officer
Santhosh Kumar C S (Sri) Hospital Assistant
Sathyalekha S I (Smt) Technical Officer (Radiation)
Shailesh Kumar K N (Sri) Technical Officer (Radiation)
Udayakumar K R (Sri) Technical Officer (Radiation)
Sreelekha L D (Smt) Radiation Technologist
Veena R R (Smt) Radiation Technologist
Vijayakumar C (Sri) Hospital Attender

Information Systems

Neelima N (Smt) Systems Manager
Rajesh P (Sri) System Analyst
Shaji J (Sri) System Analyst
Pradeep Chandran (Sri) Junior System Analyst
Basil Varghese (Sri) Junior System Analyst
Suseela Devi B (Smt) Data Entry Operator Sr.Gr.

Library & Information Services

Vishnu V (Dr) Librarian cum
Information Officer
Saji S Nair (Sri) Assistant Librarian
Haseena K Library Assistant
Rahul LR Library Assistant
Ganga A P (Smt) Clinical Records Assistant
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
Archana Surendran (Dr) Resident Medical Officer

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) Radiation Technologist Sel.Gr.
Sibi K S (Smt) Radiation Technologist

Sunitha S (Smt) Radiation Technologist
Salini PS (Smt) Radiation Technologist
Ananda Kumar K (Sri) R I A Technician Gr. I
Usha R (Smt) Data Entry Operator Gr.I

Nursing Services

Sreelekha R (Smt) Chief Nursing Officer
Flower Augustine (Smt) Nursing Supt. Gr. I
Geetha S (Smt) Nursing Supervisor
Lizyamma Jacob (Smt) Nursing Supervisor
Mariamma James (Smt) Nursing Supervisor
Sally Abraham (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.
Sheela Rodriguez (Smt) Head Nurse Sr. Gr.
Jaya T S (Smt) Head Nurse Gr. I
Jikki M (Smt) Head Nurse Gr. I
Sheeba SV (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
Geetha Kumari B S (Smt) Head Nurse Gr. I
Shema C (Smt) Head Nurse
Sindhu S (Smt) Head Nurse
Aleyamma Mathew (Smt) Head Nurse
Bensamma Varghese (Smt) Head Nurse
Sindhu G S (Smt) Head Nurse
Siva Kumari P R (Smt) Head Nurse
Elsamma Joseph (Smt) Head Nurse
Ajitha T L (Smt) Staff Nurse Sr. Gr.
Anila Kumari S (Smt) Staff Nurse Sr. Gr.
Chandrika P (Smt) Staff Nurse Sr. Gr.
Ilin William (Smt) Staff Nurse Sr. Gr.
Indira Devi G (Smt) Staff Nurse Sr. Gr.
Indu V S (Smt) Staff Nurse Sr. Gr.
Indulekha (Smt) Staff Nurse Sr. Gr.
Jessy Thomas (Smt) Staff Nurse Sr. Gr.
Kumari Sindhu S (Smt) Staff Nurse Sr. Gr.
Laly Joseph (Smt) Staff Nurse Sr. Gr.
Mangalam S (Smt) Staff Nurse Sr. Gr.
Marykutty Mathew (Smt) Staff Nurse Sr. Gr.
Ranichandra V (Smt) Staff Nurse Sr. Gr.
Rethidevi G S (Smt) Staff Nurse Sr. Gr.

Sajitha S (Smt)	Staff Nurse Sr. Gr.	Baijudeen B (Sri)	Staff Nurse
Saraswathy Amma P (Smt)	Staff Nurse Sr. Gr.	Beena K G (Smt)	Staff Nurse
Sherly M (Smt)	Staff Nurse Sr. Gr.	Bency Varghese (Smt)	Staff Nurse
Shijikumary N G (Smt)	Staff Nurse Sr. Gr.	Biji P R (Smt)	Staff Nurse
Suma PV (Smt)	Staff Nurse Sr. Gr.	Bilna Sasi (Smt)	Staff Nurse
Swapna C R (Smt)	Staff Nurse Sr. Gr.	Bincy Lukose (Smt)	Staff Nurse
Abraham Shini (Smt)	Staff Nurse Gr. I	Bindhu K G (Smt)	Staff Nurse
Ajitha S (Smt)	Staff Nurse Gr. I	Bindhu Rani PV (Smt)	Staff Nurse
Anitha Kumary PV (Smt)	Staff Nurse Gr. I	Bindu B (Smt)	Staff Nurse
Aleyamma Chacko (Smt)	Staff Nurse Gr. I	Bindu Kumari T C (Smt)	Staff Nurse
Bindhu M (Smt)	Staff Nurse Gr. I	Bini R (Smt)	Staff Nurse
Bindhu PD (Smt)	Staff Nurse Gr. I	Cherupushpam M (Smt)	Staff Nurse
Bini A (Smt)	Staff Nurse Gr. I	Chithra V G (Smt)	Staff Nurse
Binu O (Smt)	Staff Nurse Gr. I	Daisy A (Smt)	Staff Nurse
Geetha Kumari D (Smt)	Staff Nurse Gr. I	Deepa A S (Smt)	Staff Nurse
Joby Paul (Smt)	Staff Nurse Gr. I	Deepa R (Smt)	Staff Nurse
Leemol Mathew (Smt)	Staff Nurse Gr. I	Deepa T P (Smt)	Staff Nurse
Jyothilekshmi D (Smt)	Staff Nurse Gr. I	Divya Das S (Smt)	Staff Nurse
Moly MT (Smt)	Staff Nurse Gr. I	Ducakis S (Smt)	Staff Nurse
Mareena Silas (Smt)	Staff Nurse Gr. I	Fathima S (Smt)	Staff Nurse
Rosamma Joseph (Smt)	Staff Nurse Gr. I	Fathima Suhra M (Smt)	Staff Nurse
Nisha Vidyadhar R (Smt)	Staff Nurse Gr. I	Georgia George (Smt)	Staff Nurse
Lizy Varkey (Smt)	Staff Nurse Gr. I	Gigi Mol Chacko (Smt)	Staff Nurse
Sheeba P (Smt)	Staff Nurse Gr. I	Girija L (Smt)	Staff Nurse
Sindhumul M G (Smt)	Staff Nurse Gr. I	Gracy Sebastian (Smt)	Staff Nurse
Sophiya Lilly (Smt)	Staff Nurse Gr. I	Irshad A P (Sri)	Staff Nurse
Jainamma Standal (Smt)	Staff Nurse Gr. I	Jaichitra MV (Smt)	Staff Nurse
Sheeja DB (Smt)	Staff Nurse Gr. I	Jamshad P (Smt)	Staff Nurse
Sheeja Samuel (Smt)	Staff Nurse Gr. I	Jasna P K (Smt)	Staff Nurse
Sindhu G (Smt)	Staff Nurse Gr. I	Jayasree C G (Smt)	Staff Nurse
Abdul Jaseer E (Sri)	Staff Nurse	Jeeja Rajan (Smt)	Staff Nurse
Ajila M S (Smt)	Staff Nurse	Jesna R (Smt)	Staff Nurse
Ajitha S (Smt)	Staff Nurse	Jijimol S J (Smt)	Staff Nurse
Amrutha L Raj (Smt)	Staff Nurse	Julie Mariam Jacob (Smt)	Staff Nurse
Aneeta J George (Smt)	Staff Nurse	Karthika Raj K S (Smt)	Staff Nurse
Anjay P (Smt)	Staff Nurse	Kavitha S G (Smt)	Staff Nurse
	(Resigned 31.03.2016)	Kochuthresia PV (Smt)	Staff Nurse
Annamma E J (Smt)	Staff Nurse	Kumari Sobha D (Smt)	Staff Nurse
Anupama B (Smt)	Staff Nurse	Ligi Das R S (Smt)	Staff Nurse
Anupama Susmitha (Smt)	Staff Nurse	Lija K (Smt)	Staff Nurse
Aradhana S (Smt)	Staff Nurse	Linsa George (Smt)	Staff Nurse
Archana M Nair (Smt)	Staff Nurse	Manju V P (Smt)	Staff Nurse
Ariya Sreedharan B (Smt)	Staff Nurse	Manjusha G S	Staff Nurse
Aswathy M R (Smt)	Staff Nurse	Manoj G S (Sri)	Staff Nurse

Maya N Nair (Smt)	Staff Nurse	Shijitha K S (Smt)	Staff Nurse
Maya S S (Smt)	Staff Nurse	Shiny George (Smt)	Staff Nurse
Mayadevi L (Smt)	Staff Nurse	Shiny P Thankappan (Smt)	Staff Nurse
Neethu Jacob (Smt)	Staff Nurse	Simmy Panicker S (Smt)	Staff Nurse
Nisha K N (Smt)	Staff Nurse	Sindhu K (Smt)	Staff Nurse
Nisha K Thomas (Smt)	Staff Nurse	Sindhu L (Smt)	Staff Nurse
Niza A Khalam (Smt)	Staff Nurse	Sindhu P 5377 (Smt)	Staff Nurse
Preeja S (Smt)	Staff Nurse	Sindhu P Nair (Smt)	Staff Nurse
Preetha A (Smt)	Staff Nurse	Sindhu R (Smt)	Staff Nurse
Preetha P Nair (Smt)	Staff Nurse	Sindhu V (Smt)	Staff Nurse
Preetha S (Smt)	Staff Nurse	Smitha S Nair (Smt)	Staff Nurse
Preetha Thomas (Smt)	Staff Nurse	Soni John (Smt)	Staff Nurse
Preethi P R (Smt)	Staff Nurse	Sreeja A P (Smt)	Staff Nurse
Priya K L (Smt)	Staff Nurse	Sreeja M S (Smt)	Staff Nurse
Rajani R V (Smt)	Staff Nurse	Sreeja S (5233) (Smt)	Staff Nurse
Rajaram S K (Sri)	Staff Nurse	Sreekala N S (Smt)	Staff Nurse
Rajesh Kumar S (Sri)	Staff Nurse	Sreekala P (Smt)	Staff Nurse
Raji K R (Smt)	Staff Nurse	Sreekala T (Smt)	Staff Nurse
Rani Thomas (Smt)	Staff Nurse	Sreekumaran Pillai V (Sri)	Staff Nurse
Rashid E K (Sri)	Staff Nurse	Sreelatha C S (Smt)	Staff Nurse
Reena A (Smt)	Staff Nurse	Sreelekha S (Smt)	Staff Nurse
Reena P Stanley (Smt)	Staff Nurse	Sukanya Kumari S R (Smt)	Staff Nurse
Rejani Mole A (Smt)	Staff Nurse	Suma V (Smt)	Staff Nurse
Remya R Chandran (Smt)	Staff Nurse	Suma John (Smt)	Staff Nurse
Renjini R S (Smt)	Staff Nurse	Suma K (Smt)	Staff Nurse
Renjini S R (Smt)	Staff Nurse	Suma P S (Smt)	Staff Nurse
Resmi V (Smt)	Staff Nurse	Sumam L (Smt)	Staff Nurse
Roja S Anand (Smt)	Staff Nurse	Sumathy P (Smt)	Staff Nurse
Rugmini M D (Smt)	Staff Nurse	Sumayya E K (Smt)	Staff Nurse
Saji G S (Smt)	Staff Nurse		(Resigned 31/8/15)
Saloma P S (Smt)	Staff Nurse	Suni Mathew (Smt)	Staff Nurse
Sandhya G (Smt)	Staff Nurse	Sunitha L (Smt)	Staff Nurse
Sandhya V Nair (Smt)	Staff Nurse	Swopna K (Smt)	Staff Nurse
Sandhyamol K S (Smt)	Staff Nurse	Thara S S (Smt)	Staff Nurse
Sangeetha K S (Smt)	Staff Nurse	Vasanthakumari R (Smt)	Staff Nurse
Saritha S S (Smt)	Staff Nurse	Sithara Balakrishnan	Staff Nurse
Shabeerali K (Sri)	Staff Nurse	Archana C S (Smt)	Staff Nurse
Sharmi N (Smt)	Staff Nurse	Sahiya V V (Smt)	Staff Nurse
Sheeba P Varghese (Smt)	Staff Nurse	Jafna N (Smt)	Staff Nurse
Sheeba V L (Smt)	Staff Nurse	Arathy S R (Smt)	Staff Nurse
Sheeja B T (Smt)	Staff Nurse	Aparna A (Smt)	Staff Nurse
Sheeja H (Smt)	Staff Nurse	Manju Punnen (Smt)	Staff Nurse
Sheeja Kumari G (Smt)	Staff Nurse	Savitha V (Smt)	Staff Nurse
Sherry M (Smt)	Staff Nurse	Reshmi V P K (Smt)	Staff Nurse

Neetha Abraham(Smt)	Staff Nurse	Sivaranjini V M(Smt)	Staff Nurse
Nirmal G (Sri)	Staff Nurse	Reshmi E R(Smt)	Staff Nurse
Ajith Clement C (Sri)	Staff Nurse	Dhanya A S(Smt)	Staff Nurse
Resmi V R(Smt)	Staff Nurse	Shiyas S R(Sri)	Staff Nurse
Gayathri Devi K S(Smt)	Staff Nurse	Kavitha G S(Smt)	Staff Nurse
Keerthy M S(Smt)	Staff Nurse	Mohammad Sajin N(Sri)	Staff Nurse
Lekshmi P Nair(Smt)	Staff Nurse	Alex John(Sri)	Staff Nurse
Asha A(Smt)	Staff Nurse	Ashwathi J C(Smt)	Staff Nurse
Harish Nair M(Sri)	Staff Nurse	Laiby V Elizabeth(Smt)	Staff Nurse
Manju V M(Smt)	Staff Nurse	Kavitha Mohan L(Smt)	Staff Nurse
Divya Pauly(Smt)	Staff Nurse	Dhanya I S(Smt)	Staff Nurse
Usha Rani E N(Smt)	Staff Nurse		(Resigned 11.11.2015)
	(Resigned 02.11.2015)	Geethu Karun(Smt)	Staff Nurse
Bismi N S(Smt)	Staff Nurse	Shirly Joseph(Smt)	Staff Nurse
Likha Prasad(Smt)	Staff Nurse		(Resigned 23.12.2015)
Rincy Rajan(Smt)	Staff Nurse	Keerthi R Pillai(Smt)	Staff Nurse
Jamsheena E M(Smt)	Staff Nurse	Tania Raj K (Smt)	Staff Nurse
Aswathy S(Smt)	Staff Nurse	Bibin K. Mathew (Sri)	Staff Nurse
Anuroop J S(Sri)	Staff Nurse	Neelima G (Smt)	Staff Nurse
	(Resigned 23.11.2015)	Anu Priya VM (Smt)	Staff Nurse
Rosamma PT(Smt)	Staff Nurse	Asha S (Smt)	Staff Nurse
Surya S(Smt)	Staff Nurse	Karthika Thampi (Smt)	Staff Nurse
	(Resigned 28.11.2015)	Divya VJ (Smt)	Staff Nurse
Ajeesh K(Sri)	Staff Nurse	Neethu Sasi (Smt)	Staff Nurse
Neethumol N M(Smt)	Staff Nurse	Susan John (Smt)	Staff Nurse
	(Relieved 10.10.2015)	Sajitha S (Smt)	Staff Nurse
Dhanya Krishnan M G(Smt)	Staff Nurse	Pratheeksha R (Smt)	Staff Nurse
Anju Dominic(Smt)	Staff Nurse	Sajana K. Badusha (Smt)	Staff Nurse
Soumya T L(Smt)	Staff Nurse	Diana C (Smt)	Staff Nurse
Abhilash Michael(Sri)	Staff Nurse	Riti Merin Abraham (Smt)	Staff Nurse
Aishwarya P G(Smt)	Staff Nurse	Ansha P.Jyothy (Smt)	Staff Nurse
Vishnu Prasad V S(Sri)	Staff Nurse	Lekshmi Mohan (Smt)	Staff Nurse
Meenu M R(Smt)	Staff Nurse	Anu KS (Smt)	Staff Nurse
	(Resigned 29.10.2015)	Preetha B (Smt)	Staff Nurse
Devi Prabhu P(Smt)	Staff Nurse	Sankar MG (Smt)	Staff Nurse
Arya P(Smt)	Staff Nurse	Jinn Joseph (Sri)	Staff Nurse
Biyas S B(Smt)	Staff Nurse	Gireeshkumar S (Sri)	Staff Nurse
Joseph Jennings M M(Sri)	Staff Nurse	Jayakrishnan J (Sri)	Staff Nurse
Binson Baby(Sri)	Staff Nurse	Salini VP (Smt)	Staff Nurse
Sajisha E S(Smt)	Staff Nurse	Anu K. Avirah (Smt)	Staff Nurse
Sandhya Rapheal(Smt)	Staff Nurse	Remya KB (Smt)	Staff Nurse
Bisni Luckose(Smt)	Staff Nurse	Thanu Nadesan (Smt)	Staff Nurse
	(Resigned 30.11.2015)		(Resigned 15.03.2016)
Muhammed Anwar V P M(Sri)	Staff Nurse	Lalu Joy (Smt)	Staff Nurse

Mini MS (Smt)	Staff Nurse	Mariamamma Joseph (Smt)	Nursing Assistant
Jubilet Malar C (Smt)	Nursing Assistant	Geetha P K (Smt)	Nursing Assistant
Sreekumari N (Smt)	Nursing Assistant	Bindhu S (Smt)	Nursing Assistant
Kumari Sindhu T S (Smt)	Nursing Assistant	Sali Varughese (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
Deenamamma 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	Rajan J (Sri)	Cleaner
Deepthi S S (Smt)	Nursing Assistant	Santhakumary A (Smt)	Cleaner
Sherly P K (Smt)	Nursing Assistant	Sajeesh C.K. (Sri)	Cleaner
Rema K (Smt)	Nursing Assistant	Ajithakumari N K (Smt)	Cleaner
Felcy Jesslet A (Smt)	Nursing Assistant	Ambili S (C) (Smt)	Cleaner
Ambika V (Smt)	Nursing Assistant	Anila Kumary S (Smt)	Cleaner
Bigimol Dominic (Smt)	Nursing Assistant	Anitha Kumary Amma M (Smt)	Cleaner
Shaija K (Smt)	Nursing Assistant	Anitha V (Smt)	Cleaner
Geetha S (Smt)	Nursing Assistant	Baby D (Smt)	Cleaner
Sneha Latha S (Smt)	Nursing Assistant	Chandramathi Amma S (Smt)	Cleaner
Suja Kuruvilla (Smt)	Nursing Assistant	Chandrasekharan Nair M (Sri)	Cleaner
Laly V J (Smt)	Nursing Assistant	Durgadevi B (Smt)	Cleaner
Suja V (Smt)	Nursing Assistant	Ebsiba D (Smt)	Cleaner
Sindhumul V A (Smt)	Nursing Assistant	Geethakumari K (Smt)	Cleaner
Sajini John (Smt)	Nursing Assistant	Girija S (Smt)	Cleaner
Jessy Philipose (Smt)	Nursing Assistant	Gopakumar P (Sri)	Cleaner
Shyni John (Smt)	Nursing Assistant	Jayanthi D (Smt)	Cleaner
Sheeba P K (Smt)	Nursing Assistant	Justin Raj T (Sri)	Cleaner
Priya S (Smt)	Nursing Assistant	Kala Krishnan (Smt)	Cleaner
Sudha S (Smt)	Nursing Assistant	Kaladevi B (Smt)	Cleaner
Bindu A B (Smt)	Nursing Assistant	Lysal S (Smt)	Cleaner
Sithalekshmi V S (Smt)	Nursing Assistant	Lathakumary K (Smt)	Cleaner

Radha S (Lathika. S) (Smt)	Cleaner
Lethakumari K (Smt)	Cleaner
Mallika V (Smt)	Cleaner
Moly B (Smt)	Cleaner
Newton C (Sri)	Cleaner
Omana D (Smt)	Cleaner
Pradeep A (Sri)	Cleaner
Prasanna S (Smt)	Cleaner
Premaletha O T (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
Raju T (Sri)	Cleaner
Remadevi R (Smt)	Cleaner
Remany R (Smt)	Cleaner
Retnamma P (Smt)	Cleaner
Saju F (Sri)	Cleaner
Syamala T (Sakunthala.T) (Smt)	Cleaner
Sarojam D (Smt)	Cleaner
Sarojam T (Smt)	Cleaner
Sasikala P (Smt)	Cleaner
Sailaja A (Smt)	Cleaner
Kumari Sailaja K P (Smt)	Cleaner
Sobhana S (Smt)-2200	Cleaner
Sobhana S(Smt)-2218	Cleaner
Sreekanton K (Sri)	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
Sushama G(Smt)	Cleaner
Syamalakumari S (Smt)	Cleaner
Thankamoni M (Smt)	Cleaner
Thanky S (Smt)	Cleaner
Thulasi P (Smt)	Cleaner
Unnikrishnan S (Sri)	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 Sr.Gr.
Mani K S (Sri)	Cytotechnologist Sr.Gr.
Anitha S (Smt)	Cytotechnologist
Lathamalathy L (Smt)	Lab.Technician Sel.Gr.
Jayasree P S (Smt)	Lab.Technician Sr.Gr.
Jiju J S (Sri)	Lab.Technician Sr.Gr.
Sheena Rani G.S. (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
Thomas Rajasekharan (Sri)	Senior Helper
Vimal Kumar Y S (Sri)	Helper

Project Cell

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

Purchase

Sasikumar S V (Sri)	Purchase Officer
Girija Kumari L S (Smt)	Office Assistant Sr Gr.
Vijayaprasad B (Sri)	Office Assistant
Nandakumaran T (Sri)	Office Assistant
Vindhya Sugathan	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)
Mariamamma Jacob (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)
Suja B R (Smt)	Technical Officer (Radiation)
Ambily Govind K (Smt)	Radiotherapy Technologist Sel.Gr.
Geetha P (Smt)	Radiotherapy Technologist Sel.Gr.
Santhan H (Sri)	Radiotherapy Technologist Sel.Gr.
Viddiul Latha P A (Smt)	Radiotherapy Technologist Sel.Gr.
Maheswari J (Smt)	Radiotherapy Technologist Sr.Gr.
Mini V L (Smt)	Radiotherapy Technologist Sr.Gr.
Rajesh P R (Sri)	Radiotherapy Technologist Sr.Gr.
Sunitha Kumari U P (Smt)	Radiotherapy Technologist Sr.Gr.
Sindhu S S (Smt)	Radiotherapy Technologist Sr.Gr.
Saritha V S (Smt)	Radiotherapy Technologist Sr.Gr.
Abhilash Sudh S S (Sri)	Radiotherapy Technologist
Asa Rani K S (Smt)	Radiotherapy Technologist
Lal K Nair (Sri)	Radiotherapy Technologist
Manju P M (Smt)	Radiotherapy Technologist
Maya M (Smt)	Radiotherapy Technologist
Seena C S (Smt)	Radiotherapy Technologist
Sheena J (Smt)	Radiotherapy Technologist
Shinu R S (Sri)	Radiotherapy Technologist
Vinod S L (Sri)	Radiotherapy Technologist
Santhosh Kumar M S (Sri)	Electronic Technician Gr.I

Security

Jyothikumar S (Sri)	Sergeant
Satheeshkumar K S (Sri)	Tel.Operator Cum Recp. Gr. I
Sreekumar C (Sri)	Tel.Operator Cum Recp.
Sukumaran Nair R (Sri)	Security Guard
Vikraman Chettiar B. (Sri)	Security Guard
Krishnan Kutty A. (Sri)	Security Guard
Unnikrishnapillai V (Sri)	Security Guard
Ajithkumar M. (Sri)	Security Guard
Ajikumar S.L.(Sri)	Security Guard
Jayachandran Nair R (Sri)	Security Guard

Supporting Services

Surendran Nair V (Sri)	Public Relations Officer
Mini N. (Smt)	Dietician Gr. I

Surgical Oncology

Mohan Pillai B (Sri)	Theatre Technician (Aneasthesia) Sr.Gr.
Abin Issac (Sri)	Operation Theatre Technician
Rajendran Nair P (Sri)	Operation Theatre Technician
Manju RS (Smt)	Operation Theatre Technician
Kirankumar (Sri)	Operation Theatre Technician
Santhosh S (Sri)	Operation Theatre Technician
Jayasree S (Smt)	Typist Gr. I
Viswakumar N (Sri)	Typist Gr. I
Suresh P S (Sri)	Senior Helper
Senan S (Sri)	Senior Helper

Transfusion Medicine

Bindu A P (Smt)	Scientific Assistant
Renukadevi V (Smt)	Lab Technician Sel. Gr.
Asha S R (Smt)	Lab. Technician Sr.Gr.
Mini S P (Smt)	Lab. Technician Sr.Gr.

e. Dismissals/Retrenchments: Nil

f. Retirements

Sylaja C (Smt)	Office Assistant Sel.Gr (31.05.2015)
Sudevi R (Smt)	Sr Personal Assistant (31.05.2015)
Anita Nayar (Smt)	Social Investigator Sel. Gr. (31.08.2015)
Gangadharan V (Sri)	Gardener Gr. I (31.05.2015)

g. Obituary: Nil

Standing Committees

a. Scientific Committee

1. Dr. Asha Kishore Chairman
Director, SCTIMST, Thiruvananthapuram
2. Dr. Paul Sebastian Alternate Chairman
Director, RCC, Thiruvananthapuram
3. Dr. G.K. Rath Member
Chief, BRA-IRCH AIIMS, New delhi
4. Dr. Rajendra A. Badwe Member
Director, Tata Memorial Centre, Mumbai
5. Dr. M. Vijayakumar Member
Director, Kidwai Memorial Institute of Oncology
Bengaluru
6. Dr. M. Radhakrishna Pillai Member
Director, Rajiv Gandhi Centre for Biotechnology
Thiruvananthapuram
7. Dr. T. Rajkumar Member
Prof. and Head, Dept. of Molecular Oncology
Cancer Institute (WIA), Chennai
8. Dr. Nirmala A. Jambhedkar Member
Prof. & Head, Dept. of Pathology
Tata Memorial Centre, Mumbai
9. Dr. Meenu Hariharan Member
Director of Medical Education (Retired)
Thiruvananthapuram
10. Dr. K. Ramadas Convener
Medical Superintendent
Regional Cancer Centre, Thiruvananthapuram.

b. Institutional Review Board

1. Dr. Paul Sebastian Chairman
Director, Regional Cancer Centre
Thiruvananthapuram.
2. Dr. P.G. Jayaprakash, Member
Prof. & Head, Division of Radiation Oncology
Regional Cancer Centre, Thiruvananthapuram.
3. Dr. K. Ramachandran, Member
Professor & Head, Division of Imageology
Regional Cancer Centre, Thiruvananthapuram.
4. Dr. P. Kusumakumary Member
Additional Director
Regional Cancer Centre, Thiruvananthapuram.
5. Dr. K. Ramadas Member
Medical Superintendent
Regional Cancer Centre, Thiruvananthapuram.

6. Dr. Iqbal Ahamed M Member
Professor & Head
Division of Surgical Oncology, Regional Cancer Centre
Thiruvananthapuram.
7. Dr. K. Jayasree Member
Professor & Head, Division of Pathology
Regional Cancer Centre, Thiruvananthapuram
8. Dr. N. Geetha Member
Professor & Head
Division of Medical Oncology
Regional Cancer Centre, Thiruvananthapuram.
9. Dr. Aleyamma Mathew Member
Additional Professor & Head
Division of Cancer Epidemiology & Biostatistics
Regional Cancer Centre, Thiruvananthapuram
10. Dr. P. Remani (Till 31 August 2015) Member
Additional Professor & Head
Division of Cancer Research
Regional Cancer Centre, Thiruvananthapuram.
11. Dr. S. Kannan (From 1 September 2015) Member
Professor & Head
Division of Cancer Research
Regional Cancer Centre, Thiruvananthapuram.
12. Dr. Rachel Cherian Koshy Member
Professor & Head
Division of Anaesthesiology, Regional Cancer Centre
Thiruvananthapuram.
13. Dr. Francis V. James Convener
Additional Professor
Division of Radiation Oncology
Regional Cancer Centre, Thiruvananthapuram.

c. Ethics Committee

1. Dr. M. Narendranathan Chairman
'Sreenilayam', Veerabhadra Gardens
Pottakuzhi, Pattom P.O., Thiruvananthapuram.
2. Dr. M. Radhakrishna Pillai Member
Director, Rajiv Gandhi Centre for Biotechnology
Thiruvananthapuram.
3. Dr. C.C. Kartha Member
Professor of Eminence
Department of Molecular Medicine
Rajiv Gandhi Centre for Biotechnology
Thiruvananthapuram.
5. Dr. V. Retnavally Member

- Prof. of Pharmacology (Rtd.)
'Lekshmi', House No. 59
Vrindavan Housing Colony
Pattom, Thiruvananthapuram.
5. Adv. Krishnankutty Nair Member
'Arathy', T.C. 17/28, JERA 21
Jagathy, Thiruvananthapuram.
6. Smt. Daryl Francis Member
'Bethlehem', D7D Moolayil Lane
Sasthamangalam, Thiruvananthapuram
7. Dr. Sanjeev V. Thomas Member
Professor of Neurology
Sree Chitra Tirunal Institute for Science & Technology
Thiruvananthapuram.
8. Dr. Iqbal Ahamed M Member
Professor and Head, Division of Surgical Oncology
Regional Cancer Centre, Thiruvananthapuram
9. Dr. N. Geetha Member
Professor & Head, Division of Medical Oncology
Regional Cancer Centre, Thiruvananthapuram
10. Fr. Shoji Vechoorkarottu Member
Technologist & Social Worker
St. Aloysius Minor Seminary
Cheshire Home Lane, Kuravankonam, Kowdiar Post
Thiruvananthapuram-695003
11. Smt. Thankam Gopalakrishnan Member
A51, 'Lekshmi', T.C. 9/2638(1), Elankom Garden,
Vellayambalam, Thiruvananthapuram-695010
12. Dr. Rejnish Kumar R Convener
Addl. Professor of Radiation Oncology
Regional Cancer Centre, Thiruvananthapuram.

d. Medical Audit Committee

1. Dr. K. Ramadas, Medical Superintendent Chairman
2. Dr. P.G. Jayaprakash,
HOD, Radiotherapy Member
3. Dr. Iqbal Ahamed,
HOD, Surgical Oncology Member
4. Dr. N. Geetha, HOD, Medical Oncology Member
5. Dr. P. Kusumamumary,
HOD, Paediatric Oncology Member
6. Dr. K. Ramachandran, HOD, Imageology Member
7. Dr. V.M. Pradeep, HOD, Nuclear Medicine Member
8. Dr. Cherian M. Koshy,
HOD, Palliative Care Member

9. Dr. Beela Sarah Mathew,
Addl. Professor, Radiotherapy Member
10. Dr. R. Rejnish Kumar,
Addl. Professor, Radiotherapy Member
11. Ms. R. Sreelekha, Chief Nursing Officer Member
12. Smt. Chandrika D,
Medical Records Officer Member

e. Hospital Infection Control Committee

1. Dr. K. Ramadas, Medical Superintendent Chairman
2. Dr. Iqbal Ahamed,
HOD, Surgical Oncology Member
3. Dr. N. Geetha, HOD, Medical Oncology Member
4. Dr. Rachel Cherian Koshy,
HOD, Anaesthesiology Member
5. Dr. Swapna R. Nath, HOD, Microbiology Member
6. Dr. K. Vijayalekshmi,
HOD, Transfusion Medicine Member
7. Ms. R. Sreelekha, Chief Nursing Officer Member
8. Nursing Supdt., in charge of
Laundry & Linen Services Member
9. Nursing Supdt., in charge of
Housekeeping Services Member
10. Head Nurse in charge of CVAD Member
11. Infection Control Nurse Member
12. Controller of Finance Member
13. Purchase Officer Member
14. Ms. Lizyamma Jacob, Nursing Supervisor Convener

f. Building Committee

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

g. Library Committee

1. Dr. Paul Sebastian, Director	Chairman
2. Dr. P. Kusumakumary, Additional Director	Member
3. Dr. K. Ramadas, Medical Superintendent	Member
4. Sri. R. Sanjeev, Controller of Finance	Member
5. Dr. K. Ramachandran, HOD, Imageology Division	Member
6. Dr. K. Jayasree, HOD, Pathology Division	Member
7. Dr. V. Vishnu, Librarian cum Information Officer	Convener

Right To Information Act

a. Public Information Officers

1. Sri. V. S. Sunil, Accounts Officer
2. Smt. Lalitha B, Assistant Administrative Officer Gr. I
3. Smt. Chandrika D., Medical Records Officer
4. Smt. N. Neelima, Systems Manager

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
Sri. V. Surendran Nair, Public Relations Officer

c. Appellate Authority

Dr. K Ramadas, Medical Superintendent

d. Number of Applications

Received: 115

Disposed: 112

Pending: 09

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

- a. Grievance redressal mechanism: Committee for redressal of complaints of sexual harassment against female employees.
- b. Official language act : Not implemented
- c. Computerisation : Completed

ACCOUNTS
2015-2016

**REGIONAL CANCER CENTRE SOCIETY,TRIVANDRUM (Reg. No. 567/81)
BALANCE SHEET AS ON 31st MARCH 2016**

Schedule	Liabilities	Current Year (Rs.)	Previous Year (Rs.)	Schedule	Assets	Current Year (Rs.)	Previous Year (Rs.)
I	CAPITAL FUND	2,25,01,60,872.17	2,00,47,19,182.17	VI	FIXED ASSETS	2,22,93,69,455.76	1,98,17,33,730.76
II	SPECIFIC FUNDS	45,54,23,130.65	33,04,98,625.80		PROVISION FOR DEPRECIATION	(1,16,23,13,963.64)	(1,03,03,25,207.12)
	GRANT FROM GOVT: OF INDIA	2,03,85,428.00	4,80,00,000.00			1,06,70,55,492.12	95,14,08,523.64
	INTEREST ON GOVT: OF INDIA GRANT		1,00,59,462.61				
	GRANT FROM GOVT: OF KERALA	35,76,43,020.00	56,71,42,586.00	VII	INVESTMENTS	77,02,45,879.00	60,89,89,775.00
	CCL FUND	20,87,17,861.00	20,20,23,346.00				
III	RADIO THERAPY RESEARCH FUND	7,25,621.00	7,25,621.00		CURRENT ASSETS AND LOANS AND ADVANCES		
	CURRENT LIABILITIES AND PROVISIONS			VIII	CLOSING STOCK	16,45,72,670.11	9,54,37,194.94
IV	CURRENT LIABILITIES - OTHERS	1,11,73,24,221.30	1,04,21,61,268.16	IX	ADVANCES - OTHERS & OTHER C/A	4,51,97,013.40	3,63,89,754.36
	PROVISION FOR GRATUITY	3,19,41,718.00	4,75,69,930.00	X	INVESTIGATION FEES RECEIVABLE	85,32,62,085.14	72,73,79,520.68
V	CREDITORS FOR GOODS SUPPLIED	23,03,83,121.25	10,91,65,398.25	XI	BALANCE WITH BANKS	61,56,64,120.46	43,74,06,341.06
				XII	BALANCE WITH TREASURY	62,20,17,012.00	87,22,61,012.00
				XIII	CASH IN HAND	7,17,123.98	8,83,586.98
				XIV	INCOME & EXPENDITURE A/C	53,39,73,597.16	63,19,09,711.33
TOTAL		4,67,27,04,993.37	4,36,20,65,419.99	TOTAL		4,67,27,04,993.37	4,36,20,65,419.99

XV SIGNIFICANT ACCOUNTING POLICIES

XVI NOTES ON ACCOUNTS

Schedules I to XVI form an integral part of this Balance Sheet.

Thiruvananthapuram

16.10.2017

DR. PAUL SEBASTIAN
(Director)

R. SANJEEV
(Controller of Finance)

As per my report of even date attached

For K. Abraham Mathew & Co.
Chartered Accountants
FRN 10110005
K. Abraham Mathew F.C.A.
Membership No.: 26195

**REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg.No. 567/81)
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2016**

Schedule	Expenditure	Current Year (Rs.)	Previous Year (Rs.)	Schedule	Income	Current Year (Rs.)	Previous Year (Rs.)
	OPENING STOCK	9,54,37,194.94	10,69,02,581.00		GRANT IN AID: GOVT OF KERALA	45,29,74,000.00	30,65,40,000.00
A	PURCHASES MEDICINES, CHEMICALS ETC	69,81,60,229.00	58,25,51,348.50		INVESTIGATION FEES	53,78,35,073.70	49,45,47,136.57
B	SALARIES AND ALLOWANCES	65,46,52,385.60	62,96,89,568.00		MEDICINE RECEIPTS	58,76,17,867.20	57,26,83,335.34
	UNIFORM AND LIVERIES	10,87,123.00	6,41,018.00		INTEREST INCOME	1,98,06,742.00	1,12,86,131.00
C	RENT, RATES & TAXES	15,01,736.73	2,81,112.84	K	TRAINING FEES	2,46,76,475.00	2,01,10,429.00
D	POSTAGE, TELEPHONE & TELEGRAM	5,27,681.50	5,45,234.50		FLOOR RENT RECEIVED	60,000.00	60,000.00
E	TRAVELLING EXPENSES	2,45,109.00	4,00,328.00		INTEREST ON RADIO THERAPY RESEARCH FUND	44,789.00	45,979.00
	PRINTING & STATIONERY	21,98,066.00	26,95,152.00		PHOTOCOPYING INCOME	56,980.00	49,900.00
	ADVERTISMENT CHARGES	11,06,192.00	35,71,361.00	L	MISCELLANEOUS INCOME	1,08,68,434.79	45,21,905.61
F	ELECTRICITY & WATER CHARGES	3,66,94,313.00	3,23,00,280.37		PRIOR PERIOD INCOME	4,85,359.00	34,91,862.90
G	REPAIRS & MAINTENANCE	3,25,12,963.50	2,11,61,430.00		CLOSING STOCK	16,45,72,670.11	9,54,37,194.94
H	SERVICE CONTRACT CHARGES	3,26,28,082.30	2,65,83,834.10		EXCESS OF EXPENDITURE OVER INCOME		5,88,12,184.93
	STATUTORY AUDIT FEES	1,75,000.00	1,75,000.00				
	INTERNAL AUDIT FEES	1,75,000.00	1,75,000.00				
I	COMPUTER EXPENSES	10,72,444.00	6,72,676.00				
	BOOKS & PERIODICALS	16,45,000	14,067.00				
	EXPENSES TO NTR	52,46,840.00	47,52,307.00				
	PRIOR PERIOD EXPENSES	7,84,425.00	1,96,84,802.59				
	MEDICINE ISSUES - FREE	59,098.00	1,15,727.50				
J	MISCELLANEOUS EXPENSES	76,76,532.88	1,01,09,904.32				
	Depreciation	13,19,88,756.52	12,45,63,326.56				
	EXCESS OF INCOME OVER EXPENDITURE	9,50,52,767.83					
	TOTAL	1,79,89,98,390.80	1,56,75,86,059.29	TOTAL		1,79,89,98,390.80	1,56,75,86,059.29

Schedules A to L Villand XIV form an integral part of this Statement.

Thiruvananthapuram
16.10.2017

DR. PAUL SEBASTIAN
(Director)

R. SANJEEV
(Controller of Finance)

As per my report of even date attached

For K. Abraham Mathew & Co.
Chartered Accountants
FRN 0110005
K. Abraham Mathew F.C.A.
Membership No.: 26195

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg. No. 567/81)

SCHEDULE - VI

ITEM	Cost on 1.4.15		Gross Block		Rate of Depreciation	Up to 31.3.15	Depreciation		Net Block	
	Additions	Deduction	Cost on 31.3.2016	Deduction			Total upto 31.3.2016	As on 31.3.2016	As on 31.3.2015	
LAND	1,000.00	0.00	1,000.00			0.00	0.00	0.00	1,000.00	1,000.00
BUILDINGS	25,10,77,685.57	58,11,804.00	25,68,89,489.57		10%	12,53,24,931.91	1,31,56,455.77	1,384,81,387.68	11,84,08,101.89	12,57,52,753.66
CIVIL WORKS	3,09,1,40.63	0.00	3,09,1,40.63		10%	1,54,169.62	15,497.10	1,69,666.72	1,39,473.91	1,54,971.01
COBALT UNIT	1,81,23,455.30	0.00	1,81,23,455.30		15%	1,62,73,152.36	2,77,545.44	1,65,50,697.80	15,72,757.50	18,50,302.94
WATER SUPPLY AND DRAINAGE	65,63,373.43	0.00	65,63,373.43		15%	43,49,731.13	3,32,046.35	46,81,777.48	88,1,595.96	22,13,642.30
FURNITURE AND FITTINGS	2,91,46,665.48	24,53,163.00	3,15,99,828.48		10%	1,53,92,358.38	16,20,470.01	1,70,13,105.39	1,45,86,723.09	1,37,54,307.10
OFFICE EQUIPMENTS	27,18,018.43	7,508.00	27,25,526.43		15%	25,07,147.50	32,756.84	25,39,904.34	1,85,62,209	2,10,87,093
HOSPITAL & LAB. EQUIPMENTS	1,02,15,04,230.97	10,69,28,700.00	1,12,84,32,930.97		15%	59,48,41,302.86	800,38,744.22	67,48,800,470.8	45,35,52,883.89	42,66,62,928.11
ELECTRICAL INSTALLATION	7,90,97,128.90	59,11,030.00	8,50,08,158.90		15%	5,13,54,237.07	50,48,088.27	5,64,02,325.34	2,86,05,833.56	2,77,42,891.83
FIRE DETECTION	46,28,400.00		46,28,400.00		15%	41,13,470.89	77,239.37	41,90,710.26	4,37,689.74	5,14,929.11
AIR CONDITIONING	4,65,28,130.35	1,35,77,750.00	4,78,85,880.35		15%	2,85,76,522.88	28,96,403.62	3,14,72,926.50	1,64,12,953.85	1,79,51,607.47
COMPUTER HARDWARE & SOFTWARE	4,35,39,524.00	1,24,10,729.00	5,59,50,253.00		60%	3,62,32,286.86	1,18,30,779.68	4,80,63,066.54	7,887,186.46	73,07,237.14
GAS AND CYLINDER	1,03,84,532.05	0.00	1,03,84,532.05		15%	75,86,920.62	4,19,641.71	80,06,562.33	23,77,969.72	27,97,611.43
VEHICLES	30,61,675.60	18,61,496.00	49,23,171.60		15%	18,00,475.47	4,68,404.42	22,68,879.89	2,654,291.71	12,61,200.13
LIBRARY BOOKS AND JOURNALS	6,97,888.18.65	83,14,785.00	7,81,03,603.65		15%	3,98,14,609.24	57,43,349.16	4,55,57,958.40	3,25,45,645.25	2,99,74,209.41
LIFT AND ELEVATOR	1,30,888,571.00	1,40,16,989.00	2,71,05,560.00		15%	82,20,084.77	28,32,821.28	1,10,52,906.05	1,60,52,665.95	48,68,486.23
ASSETS (DONATIONS)	3,70,11,200.00	0.00	3,70,11,200.00		15%	3,44,169.73	3,891.34	3,48,061.07	22,05,093	25,942.27
TELEPHONE EQUIPMENTS	60,23,247.00	38,950.00	60,62,197.00		15%	41,60,241.70	2,85,293.30	44,45,535.00	16,16,662.01	18,63,005.30
HIGH ENERGY LINEAR ACCELERATOR	5,29,87,763.00	0.00	5,29,87,763.00		15%	4,41,20,618.77	1,33,007.163	4,54,50,690.40	75,37,072.60	88,671,444.23
ASSETS-TELEMEDICINES PROJECT	77,18,623.00	0.00	77,18,623.00		15%	65,85,618.87	1,69,950.62	67,55,569.49	9,63,053.51	11,33,004.13
HOSPITAL EQUIPMENTS & OTHER ASSETS (PROJECT)	6,45,25,071.00	64,96,792.00	7,10,21,863.00		15%	3,59,45,763.71	52,61,414.89	41,20,71,78.60	2,98,14,684.40	2,85,79,307.29
LOW ENERGY LINEAR ACCELERATOR	36,11,489.40	0.00	36,11,489.40		15%	26,27,392.78	1,47,614.49	27,75,007.27	8,36,482.13	9,84,096.62
WORK IN PROGRESS										
FIRE DETECTION - WORK IN PROGRESS	56,08,581.00	41,22,236.00	97,30,817.00						97,30,817.00	56,08,581.00
VEHICLES		18,30,760.00	18,30,760.00						18,30,760.00	0.00
OFFICE EQUIPMENTS - WIP	12,07,024.00	0.00	12,07,024.00						12,07,024.00	12,07,024.00
ELECTRICAL INSTALLATION - WORK IN PROGRESS	1,17,34,043.00	90,53,919.00	2,07,87,962.00						2,07,87,962.00	1,17,34,043.00
LIFT AND ELEVATOR	1,25,21,400.00		1,25,21,400.00						0.00	1,25,21,400.00
HOSPITAL & LAB. EQUIPMENTS - WORK IN PROGRESS		30,17,230.00	30,17,230.00						30,17,230.00	
SOLAR POWER GENERATION SYSTEM - WORK IN PROGRESS		79,20,000.00	79,20,000.00						79,20,000.00	0.00
BUILDINGS WORK IN PROGRESS	19,85,34,958.00	6,39,61,483.00	26,24,96,441.00						26,24,96,441.00	19,85,34,958.00
AIR CONDITIONING - WORK IN PROGRESS	1,73,31,069.00	48,34,892.00	2,16,40,331.00						2,16,40,331.00	1,73,31,069.00
NEW BUILDING - SOIL INVESTIGATION		3,32,539.00	3,32,539.00						3,32,539.00	0.00
CHARGES - WORK IN PROGRESS										
TOTAL	1,98,17,33,730.76	2,60,68,275.50	2,22,93,69,455.76	1,30,47,030.00	1,03,03,25,207.12	13,198,756.52	11,623,13,963.64	106,70,55,492.12	95,14,08,523.64	

Thiruvananthapuram
16.10.2017

DR. PAUL SEBASTIAN
(Director)

R. SANJEEV
(Controller of Finance)

For K. Abraham Mathew & Co.
Chartered Accountants
FRN 0110005
K. Abraham Mathew F.C.A.
Membership No.: 26195

As per my report of even date attached

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM
(Reg. no. 567/81)
CANCER CARE FOR LIFE SCHEME
INCOME AND EXPENDITURE ACCOUNT FOR
THE YEAR ENDED 31st MARCH 2016

Expenditure	Current Year (Rs.)	Previous Year (Rs.)	Income	Current Year (Rs.)	Previous Year (Rs.)
Reimbursement to Patients	1,34,00,739.16	1,31,18,474.00	Interest on FD & Investments	1,67,29,167.00	1,55,79,903.00
Transfer to CCL Membership Fee A/c	4,45,081.50				
Excess of Income over Expenditure	28,83,346.34	24,61,429.00			
TOTAL	1,67,29,167.00	1,55,79,903.00		1,67,29,167.00	1,55,79,903.00

Thiruvananthapuram
16.10.2017

DR. PAUL SEBASTIAN
(Director)

R. SANJEEV
(Controller of Finance)

As per my report of even date attached

For K. Abraham Mathew & Co.
Chartered Accountants
FRN 0110005
K. Abraham Mathew F.C.A.
Membership No.: 26195

INDEPENDENT AUDITOR'S REPORT

To,
The Members of Regional Cancer Centre Society,
Thiruvananthapuram

We have audited the accompanying financial statements of the REGIONAL CANCER CENTRE SOCIETY, Thiruvananthapuram which comprise the Balance Sheet as at 31st March, 2016 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

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position and financial performance in accordance with the accounting principles generally accepted in India to the extent applicable to the Society. This responsibility includes the 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.

Auditor's 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 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 in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by 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.

Basis for Qualified Opinion

As explained in Annexure I, the society has not obtained confirmations as at the year-end on 31.03.2016 for Investigation Fees 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 of 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.

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 matters described in the Basis of Qualified Opinion paragraph (details in Annexure I), the said 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 the case of the Balance Sheet, of the state of affairs of the Society as at 31st March, 2016; and
- (ii) in the case of the Income and Expenditure Account of the surplus for the year ended on that date.

Emphasis of Matter

We draw attention to Note 1 in Notes on Accounts regarding accounting of Government grants 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.

Thiruvananthapuram
16-10-2017

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, 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 12A (a) 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.

Thiruvananthapuram
16.10.2017

DR. PAUL SEBASTIAN
(Director)

R. SANJEEV
(Controller of Finance)

As per my report of even date attached

For K. Abraham Mathew & Co.
Chartered Accountants
FRN 0110005
K. Abraham Mathew F.C.A.
Membership No.: 26195

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. 1,04,67,369/- 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 35,57,81,524/- and similarly Grant-in-Aid from Government of India of Rs. 2,03,85,428/- 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.

Thiruvananthapuram
16.10.2017

DR. PAUL SEBASTIAN
(Director)

R. SANJEEV
(Controller of Finance)

As per my report of even date attached

For K. Abraham Mathew & Co.
Chartered Accountants
FRN 0110005
K. Abraham Mathew F.C.A.
Membership No.: 26195

TO WHOMSOEVER IT MAY CONCERN

- I. During the year 2015-16, The Regional Cancer Centre Society, Thiruvananthapuram has received Rs. 1,710.94 lakhs under the head of account 2210-05-105-52-36 (NP) Grant in Aid- Non-Salary and Rs. 2,818.80 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	G.O.(Rt)No. 1857/15/H & FWD dated 19 June 2015	285.00
2	G.O.(Rt)No. 2392/15/H & FWD dated 25 July 2015	285.00
3	G.O.(Rt)No. 3246/2015/H & FWD dated 15 Oct 2015	285.00
4	G.O.(Rt)No. 27/2016/H & FWD dated 05 Jan 2016	285.00
5	G.O.(Rt)No. 427/2016/H & FWD dated 08 Feb 2016	570.94
	Total	1710.94
B	Head of Account- 2210-05-105-52-31(NP)- Grant in Aid- Salary	
1	G.O.(Rt)No. 1857/15/H & FWD dated 19 June 2015	470.00
2	G.O.(Rt)No. 2392/15/H & FWD dated 25 July 2015	470.00
3	G.O.(Rt)No. 3246/2015/H & FWD dated 15 Oct 2015	470.00
4	G.O.(Rt)No. 27/2016/H & FWD dated 05 Jan 2016	470.00
5	G.O.(Rt)No. 427/2016/H & FWD dated 08 Feb 2016	938.80
	Total	2818.80
	Grand Total (A+B)	4529.74

2. The amount was used during the year 2015-16 for the following purposes:

Sl. No.	Purpose	Amount (Rs. in lakhs)
1.	Operational expenditure including salary	4529.74
	Total	4529.74

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

Thiruvananthapuram
16.10.2017

DR. PAUL SEBASTIAN
(Director)

R. SANJEEV
(Controller of Finance)

As per my report of even date attached

For K. Abraham Mathew & Co.
Chartered Accountants
FRN 0110005
K. Abraham Mathew F.C.A.
Membership No.: 26195

T.AJITH KUMAR B.Com, FCA
CHARTERED ACCOUNTANT

Chaitaniya,
T.C. 54/2214-2
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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, 2016 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 2015-2016 was Rs.4,53,10,487.39
2. Foreign Contribution worth Rs.1,09,91,152.53 was received by the Association during the year ended 31st March, 2016.
3. The balance in foreign contribution account together with interest earned thereon at the end of the financial year 2015-2016 was Rs.4,93,36,182.76
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.

Thiruvananthapuram
19 November 2016

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 2016

LIABILITIES	Amt (Rs Ps.)	Amt (Rs. Ps.)	ASSETS	Amt (Rs. Ps.)
CAPITAL FUND			FIXED ASSETS	
Capital Fund Account Balance		1,11,03,017.84	Computer	21,83,574.00
			Printer & UPS	2,71,010.00
			Fax Machine	51,359.00
			Refrigerator	11,953.00
			Deep Freezer	1,23,674.00
Project Balances as Per Schedule		1,85,44,608.99	Vehicle	23,80,744.00
			FAN	3,687.00
			Furniture	6,68,672.29
Research Funds as per Schedule		3,07,91,573.77	Equipments	40,76,541.00
			Air Conditioner	2,23,239.00
			Photocopier	3,22,735.00
			Building Addl. Facilities	7,85,829.55
CURRENT LIABILITIES			INVESTMENTS	
Salary Recovery	40,079.00		Term Deposit with Syndicate Bank	27,94,240.00
			Term Deposit with S.B.T	3,82,36,242.00
Payable to Res: Project a/c	2,38,581.00		Term Deposit with Fed.Bank	24,84,341.00
			Term Deposit with PNB	16,58,942.00
Other Current Liabilities	1,55,000.00	4,33,660.00		
			CURRENT ASSETS &	
			LOANS AND ADVANCES	
			Cash in Hand	81,265.00
			Cash at Bank	12,82,703.76
			Interest Accrued but not due	32,03,109.00
			Projects receivable	2,000.00
			Imprest	7,000.00
			Rent Deposits	20,000.00
TOTAL		6,08,72,860.60	TOTAL	6,08,72,860.60

Vide my report of even date attached.

Thiruvananthapuram
19th November 2016

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 2016

RECEIPTS	Amt (Rs)	PAYMENTS	Amt (Rs)
To Opening Balance:-		By Project Expenses:-	
Cash in Hand	31,716.00	“ Revenue Expenses paid	97,99,201.94
Cash at Bank	43,63,910.39		
		“ Capital Expenses paid	80,450.00
Foreign Receipts for various Projects (As per Schedule attached)	1,09,91,152.53		
Rent Deposit	10,000.00	Other expenses paid	60,461.00
Recovery from Salary	2,22,317.00	Donation for Kinginicheppu	17,75,207.87
Other Advance Recovered	45,000.00	Salary Recovery Account	2,16,627.00
Donation received for RCC	8,57,361.65	Other Advances paid	47,000.00
Interest Received	1,74,958.00	Paid to Research Projects	3,53,499.00
Tax recoveries	70,418.00	Taxes paid	70,418.00
Term Deposits matured	75,82,729.00	Term Deposits renewed	1,05,82,729.00
		To Closing Balance:-	
		Cash in Hand	81,265.00
		Cash at Bank	12,82,703.76
TOTAL	2,43,49,562.57	TOTAL	2,43,49,562.57

Vide my report of even date attached.

Thiruvananthapuram
19th November 2016

Finance Manager
(Projects)

DIRECTOR

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 2016

Liabilities	Amt (Rs. Ps.)	Amt (Rs. Ps.)	Assets	Amt (Rs. Ps.)	Amt (Rs. Ps.)
Capital Fund		99,63,577.62			
R&D Fund -Sch.5		7,32,92,366.38	Fixed Assets:- Sch-2		1,13,951.15
Training Fund(Schedule-6)		1,88,03,881.55	Investments		
Internal Projects Balances (Schedule-7)		24,40,750.00	TERM DEPOSITS :		
Current Liabilities			Syndicate Bank	14,64,543.81	
Security Deposits	2,03,752.00		Union Bank of India	13,13,125.00	
Project Balances as per Sch-I	4,52,60,599.21		SBT	9,34,10,354.00	
FC payable	2,000.00		Punjab Nat. Bank	65,24,116.00	10,27,12,138.81
EPF Recovery	32,322.00	4,54,98,673.21	Current Assets &		
			Loans and Advances		
			Foreign Contribution		
			Receivable Account	2,38,581.00	
			Cash in Hand - Sch-3	1,43,094.00	
			Cash at Bank - Sch-4	2,91,38,310.07	
			Rent Deposit	20,000.00	
			Interest Accrued but not Due	1,52,27,556.00	
			TDS	24,05,617.73	4,71,73,158.80
TOTAL		14,99,99,248.76	TOTAL		14,99,99,248.76

Vide my report of even date attached

Thiruvananthapuram
19th November 2016

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 2016

Expenditure	Amt (Rs. Ps.)	Income	Amt (Rs. Ps.)
Salary Paid	4,53,964.00	Income from Projects	27,19,152.00
Travelling Expenses	13,335.00	Interest received	1,22,59,226.92
Audit Fee	60,000.00		
Printing & Stationery	23,000.00		
Computer Stationery	2,464.00		
Postage Expenses	1,100.00		
Other Miscellaneous Expenses	18,057.73		
Depreciation	14,111.47		
Excess of Income Over Expenditure	1,43,92,346.72		
TOTAL	1,49,78,378.92	TOTAL	1,49,78,378.92

Vide my report of even date attached

Thiruvananthapuram
19th November 2016

Finance Manager
(Projects)

DIRECTOR

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

**REGIONAL CANCER CENTRE SOCIETY,
PERIPHERAL CENTRE OF RCC AT NEENDAKARA**
Income and Expenditure Account
for the year ended on 31st March 2016

Expenditure	Amount (Rs. Ps.)	Income	Amount (Rs.Ps.)
Salary	19,06,713.00	Grant-in-Aid received (G.O Rt.No.2810/2015/ H&FWD, Dt.03/09/2015)	15,00,000.00
Medicines	9,66,528.00	Grant-in-Aid received (G.O Rt.No.436/2016/ H&FWD, Dt.09/02/2016)	19,56,000.00
Consumables	53,822.00	Excess expenditure advanced by RCC	5,784.00
Travel Expenses	75,886.00		
Contingencies	1,85,500.00		
Detection Camp Expenses	86,731.00		
Furniture	73,840.00		
Laboratory Equipment	1,12,764.00		
TOTAL	34,61,784.00	TOTAL	34,61,784.00

Thiruvananthapuram
25th July 2016

Finance Manager
(Projects)

DIRECTOR

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

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

Sl.No.	Letter No. & date	Amount (Rs. in lakhs)
1	Grant-in-Aid received (Rt.No.2810/2015/H&FWD, Dt.03/09/2015)	15.00
2	Grant-in-Aid received (Rt.No.436/2016/H&FWD, Dt.09/02/2016)	19.56
	Total	34.56

Certified that out of **Rs. 34,56,000/-** of grants-in-aid sanctioned for the peripheral Centre at Neendakara, Kollam District, Regional Cancer Centre during the year **2015-16**, a sum of **Rs.34,61,784/-** has been utilized for the purpose for which it has been sanctioned. The Income and Expenditure account duly audited attached with this utilization certificate.

Director

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

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 Organisation, Geneva, Switzerland
International Agency for Research on Cancer (IARC), Lyon, France
Union for International Cancer Control (UICC) Geneva, Switzerland
World Health Organisation, 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 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
Asianet TV
Kairali TV
Care Plus, Thiruvananthapuram
Asraya, Thiruvananthapuram
Navoothan Charitable Foundation
Prathyasa, Thiruvananthapuram
SDM Cancer Relief Fund, California
All our well-wishers and friends



REGIONAL
CANCER
CENTRE

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

