

REGIONAL CANCER CENTRE

Thiruvananthapuram, India

Over three decades of changing lives





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 2014-2015



REGIONAL CANCER CENTRE

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ii

CONTENTS

		Page No.
I.	Director's Review	vi
Ш	RCC Profile at a Glance	ix
	Divisions	
	 Radiation Oncology Surgical Oncology 	
	 Surgical Oncology Medical Oncology 	3 5
	4. Paediatric Oncology	6
	5. Pathology	7
	6. Imageology	9
	7. Nuclear Medicine	10
	8. Anaesthesiology	11
	9. Radiation Physics	12
	10. Clinical Laboratory Services	14
	II. Microbiology	16
	12. Transfusion Medicine	17
	13. Palliative Medicine	18
	14. Dental Care	19
	15. Nursing Services	20
	16. Clinical Services & Medical Records	21
	17. Community Oncology	24
	 Cancer Research Cancer Epidemiology & Biostatistics 	26
	 Cancer Epidemiology & Biostatistics Library & Information Services 	28 35
	21. Information Systems	36
IV	Outreach Centres	50
	i. E.C.D.C., Ernakulam	37
	ii. E.C.D.C., Palakkad	38
	iii. N.B.R.R., Karunagappally	39
V	Multidisciplinary Clinics	
	'A' Clinic (Haematological, Lymphoreticular, Bone & Soft tissue Sarcoma)	41
	'B' Clinic (Head & Neck)	42
	'C' Clinic (Breast & Central Nervous System)	43
	'D' Clinic (Gynaec, Genitourinary & Others)	44
	'E' Clinic (Chest & Gastrointestinal)	45
	'F' Clinic (Paediatric Oncology)	46
× //	'G' Clinic (Thyroid)	47
VI	Public Relations Activities	48
VII VIII	Honours, Awards and Recognitions Received Functions, Workshops & Conferences Organized	49 50
IX	Distinguished Visitors/Talks delivered	50
Х	Gallery	51
XI	Conferences Attended and Papers Presented by Staff & Students	54
XII	Ongoing Research Projects	63
	Publications	75
	Administration, Standing Committees & Right to Information Act	82
	Accounts	93
XVI	Acknowledgements	110

GOVERNING BODY

١.	Shri. Oommen Chandy Hon'ble Chief Minister of Kerala	Chairman
2.	Shri.V.S. Sivakumar Hon'ble Minister for Health, Family Welfare and Devaswoms, Government of Kerala	Vice-Chairman
3.	Dr. K. Ellangovan, IAS Secretary to Government Health & Family Welfare Department, Government of Kerala	Alt.Vice-Chairman
4.	Shri. Rajesh Kumar Sinha, IAS Secretary, Finance (Expenditure) Finance Department, Government of Kerala	Member
5.	Shri. P. Mara Pandiyan, IAS (Till 18 February 2015) Principal Secretray to Government Planning & Economic Affairs Department, Government of Kerala	Member
6.	Dr. Alok Sheel, IAS (From 19 February 2015) Principal Secretray to Government	
7.	Planning & Economic Affairs Department Government of Kerala Shri. Lov Verma, IAS (Till 31 January 2015)	Member
	Secretary to Government Ministry of Health and Family Welfare, Government of India	Member
8.	Shri. Bhanu Pratap Sharma, IAS (From 1 February 2015) Secretary to Government Ministry of Health and Family Welfare, Government of India	Member
9.	Dr. Jagdish Prasad Director General of Health Services Ministry of Health and Family Welfare, Government of India	Member
10.	Dr. Jaganmohan A. Tharakan Director, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram	Member
11.	Dr. S.C. Gupta 'Vidya', Pulayanarkotta Road, Thiruvananthapuram	Member
12.	Dr.V. Geetha Director of Medical Education, Thiruvananthapuram	Member
	Dr. Ramdas Pisharody Principal, Government Medical College, Thiruvananthapuram	Member
4.	Dr. Paul Sebastian Director, Regional Cancer Centre	Convener

EXECUTIVE COMMITTEE

١.	Dr. K. Ellangovan, IAS	
	Secretary to Government	
	Health & Family Welfare Department, Government of Kerala	Chairman
2.	Shri. Rajesh Kumar Sinha, IAS	
	Secretary, Finance (Expenditure)	
	Finance Department, Government of Kerala	Member
3.	Shri. P. Mara Pandiyan, IAS (Till 18 February 2015)	
	Principal Secretary to Government	
	Planning & Economic Affairs Department, Government of Kerala	Member
4.	Dr. Alok Sheel, IAS (From 19 February 2015)	
	Principal Secretary to Government	
	Planning & Economic Affairs Department, Government of Kerala	Member
5.	Dr.V. Geetha	
	Director of Medical Education, Thiruvananthapuram	Member
6.	Dr. Ramdas Pisharody	
	Principal, Government Medical College, Thiruvananthapuram	Member
7.	Dr. Paul Sebastian	
	Director, Regional Cancer Centre	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 34th year of our crusade against cancer, we provided specialized cancer care to 2,23,105 patients including 15,939 newly registered cases.

The report period was eventful with recognitions and awards, as a justification of our best in-class cancer management services to the society. The Centre has been elevated to the status of 'State Cancer Institute' by Government of India, as a recognition to its capabilities in providing state-of-the-art diagnostic and treatment facilities. This re-designation will be a catalyst to strengthen the departmental infrastructure and hence the institutional facelift. The new status, we hope, would be a stepping stone to become a 'National Cancer Institute'. Another achievement is the NABH accreditation, which we have acquired after passing through a set of quality norms that have been tested for the past several years. With this, the Centre became the first Government-owned cancer treatment institution in the country to win the coveted NABH tag for quality and safety. It has improved treatment standards, patient amenities and safety and documentation of services and facilities.

The Centre manages about one-third of all cancer cases reported in Kerala. We witnessed a steady increase in patient registrations and follow-ups during the period. Managing patient flow posed a real challenge, but strove hard to ensure that all patients had access to quality cancer care. The ten-storey building that is nearing completion shall be a solace to overcome infrastructural shortcomings in this respect. Proper guidance has been given to the needy patients to avail funds from Government sponsored schemes. We have also ensured hassle free treatment to beneficiaries of various patient welfare schemes. This has helped 13,057 new patients to avail treatment worth Rs.32.23 crores through schemes such as Cancer Suraksha, Chis Plus, Karunya Benevolent Fund, Sukrutham, Thalolam, Scheduled Tribe Patient Fund, Snehasanthwanam for Endosulfan Victims, Prime Minister's Relief Fund and Rashtriya Arogya Nidhi.

The Centre has evolved into a sought-after destination for advanced training in oncology and allied fields. The MCI approved postgraduate and super-speciality courses attracted students from all over the country. Post MSc Diploma in Radiological Physics affiliated to Kerala University of Health Sciences was also started during the period. The Centre offered training to healthcare providers in the wake of Government led initiatives to set up mini RCCs in Government Medical Colleges and district hospitals. As part of this, 121 doctors and 130 nurses & paramedical staff were given training in cancer control activities. Due priority was also given in bringing out trained volunteers on prevention and control of common cancers.

The screening camps at the community level attracted huge crowd as most people with warning signs of cancer are still reluctant to approach healthcare institutions to get screened. Through 418 cancer detection/education programmes, 1149 cancers and 1345 pre-cancers were detected. The Centre has tied up with the Health department of Government of Kerala and Kudumbasree mission for the launch of the 'Swasthyam' project, which spreads the message of prevention and early detection of cancer to the grassroots level through Kudumbasree volunteers. Ambitious plans were also charted out for the conduct of screening among tribals and other marginalized sections of the society.

It is estimated that more than 40% of patients registered at RCC have tobacco-induced cancers. We have a long cherished history of tobacco control activities in the State. We have been campaigning for policy revision at the Government level to bring down economic burden of tobacco related diseases in India. The Centre also played a lead role in VoTV (Voice of Tobacco

Victims) movement – a unique campaign using tobacco victims as agents of advocacy on tobacco control. As a result of our VoTV campaign, Government of Kerala has introduced tax on 'bidi' for the first time and the tax in Kerala is 14.5%. Kerala has also the highest cigarette tax in South India (30%). Some of our epidemiological findings became valid clues to frame policies and programmes for cancer control at the community level. The statistics on cancer cases and survival patterns point to the need to declare cancer as a notifiable disease. RCC figures suggest that there is an increase in breast cancers in the State. Breast cancer constitutes about 28 - 30 % of all cancer cases in women and found Thiruvananthapuram having the highest breast cancer incidence in the county. We observed breast cancer awareness month in October with free detection clinics and public debates.

It has been planned to revise the 'Cancer Care for Life (CCL)' scheme for giving way to a viable scheme in the context of the present socio-economic environment. The enrollment to the CCL scheme, which was started in 1986 and benefitted thousands of patients, has stopped during the period.

The scientific events organized by the Centre during the period covered advanced surgical methods, anaesthesia, oncoimaging, clinical trials, nursing etc. The 5th Indo-Singapore Conference (ISCON 2015), jointly organized by the Centre and National Cancer Centre (NCC), Singapore mainly focused the technological advances and surgical modalities of Head and Neck cancer treatment. The 18th edition of Indian College of Radiation Oncology PG Teaching Programme and National Conference on Anaesthesia for Cancer Surgery were the other notable events. The World Palliative Care Day and National Cancer Awareness Day were also observed. Action plans were mooted for the commercial production of Ayurvedic mouth wash, a proven formulation to reduce pain and side effects in oral cancer patients receiving chemotherapy.

Currently 144 research projects including 42 extramurally funded projects are ongoing in the Centre. During the reporting period, 134 scientific papers, including journal articles, monographs, chapters in books and conference papers were published. Out of 88 journal articles, 65 were published in peer-reviewed indexed journals. Several of our faculty, staff and students were awarded fellowships and other awards of excellence including five PhDs.

Shri. Harsh Vardhan, Hon'ble Union Minister for Health and Family Welfare and Shri. Oommen Chandy, Hon'ble Chief Minister of Kerala paid their visit to the Centre. Dr. Federik Kaye, Division of Hematology Oncology, University of Florida College of Medicine, USA, Dr. James He'bert, founding Director of South Carolina Statewide Cancer Prevention & Control Program, USA, and Dr. Mark Sedler, Associate Dean for Global Medical Education, Stony Brook University, New York, USA also visited the Centre and delivered lectures on their area of specialisation.

Thanks are due to all the organisations that have been extending philanthropic and social intervention services to cancer survivors and families. All the support groups provided a platform for the needy with new hopes of life. Relentless efforts of RCC-based NGO's like Asraya, Care Plus and Prathyasha deserve special mention. Moreover, we found some Government initiatives to set up dormitory facilities for bystanders of patients coming to the Centre.

Each member of our engaged workforce has made meaningful influence to sustain the Centre in many exciting ways and means. I am happy that we had another eventful report year to fulfill our concerns. I am concluding this report of activities of various divisions, clinics, peripheral centres in anticipation of even better future in the years to come.

Dr. Paul Sebastian Director

RCC Profile at a Glance

- 15,939 new cases
- 2,07,166 review cases
- 10,847 in-patient admissions
- 48,872 pathology reports
- 55,997 imaging studies
- 58,747 nuclear medicine studies
- 3,45,255 clinical laboratory investigations
- 18,820 microbiology investigations
- 7355 patients were treated with external radiotherapy and 1749 patients with brachytherapy
- 6741 surgical and 2318 endoscopic procedures
- 10,128 patients were administered chemotherapy
- 39 bone marrow transplantations
- 3094 cytogenetics, FISH & RTPCR based diagnostic studies
- 30 residents in Medical, Paediatric and Surgical Oncology superspeciality courses
- 38 residents in Anaesthesia, Pathology, Radiodiagnosis and Radiotherapy postgraduate courses
- 30 PhD scholars
- 418 cancer detection programmes and 131 cancer education programmes
- 144 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
- 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

- First Paediatric Oncology division in India
- 50 bedded exclusive Paediatric Oncology ward
- A four bedded state-of-the-art ICU

Palliative Care

- First organised cancer pain clinic in the country
- 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
- Indian Palliative Care Initiative supported by Jiv Daya Foundation, USA aimed at improving the quality of palliative care

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, 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 500 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)	3	3 Yrs
MD (Pathology)	2	3 Yrs
Fellowship in Head & Neck Surgery		2 Yrs
Fellowship in Gynecologic Oncologic Surgery		2 Yrs
Post Doctoral Certificate Course in Oncopathology	2	2 Yrs
Post MSc Diploma in Radiological Physics	4	2 Yrs
Doctoral Research Programme	30	
Quality Excellence Programme in Pathology	6	l Yr
Advanced training in Diagnostic Imaging	2	l Yr
Post-basic Diploma in Oncology Nursing	20	l Yr
Cytotechnology	4	l Yr
Cytotechnician	6	6 Months
Histotechnology	4	9 Months
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 NairV Medical Records Officer: Chandrika D 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.

Scheme	Patients enrolled during the period (New cases)	Amount spent during the period (Lakhs)	Total no. benefited up to 31 March 2015	Total Amount Spent (Lakhs)
Cancer Suraksha Scheme (Govt. of Kerala)	526	466	3346	1806
Chis Plus (Govt. of Kerala)	5669	1139	18047	3522
Karunya Benevolent Fund (Govt. of Kerala)	4362	799	9779	982
Sukrutham (Govt. of Kerala)	2227	666	2227	666
Thalolam (Govt. of Kerala)	12	3.39	50	2.3
Scheduled Tribe Patient Fund (Govt. of Kerala)	28	22.55	230	155
Snehasanthwanam for Endosulfan Victims				
(Govt. of Kerala)	6	3.75	32	22.49
Prime Minister's Relief Fund	165	106.86	756	594.77
Health Minister's Rashtriya Arogya Nidhi (RAN)	59	16.19	3302	415.21
Health Minister's Discretionary Fund	3	0.41	16	5.55
Total	13057	3223.15	37785	8181.33

State and Central Government Schemes (1 April 2014 to 31 March 2015)

RCC Initiatives

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

I. Cancer Care for Life (CCL) Scheme

The scheme in its present form comes to an end on 31 August 2014. 68504 new memberships were issued from April to August 2014 and 207 new patients availed treatment.

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 7258 patients during the reporting period.

3. Free Food ('Akshayapathram')

Free food was provided to 6828 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

Special schemes are available for children suffering from cancer. Under the 'Kinginicheppu' scheme, free food and treatment was provided to poor paediatric patients through voluntary contributions. '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, 189 patients including 91 new patients received support worth Rs. 155 Lakhs.

DIVISIONS

RADIATION ONCOLOGY

Jayaprakash PG Professor & Head

Professor & Medical Superintendent: Ramadas K Professors: Parameswaran S, Ratheesan K Additional Professors:Francis V. James, Beela Sarah Mathew, Sivanandan CD, Rejnish Kumar R Additional Professor & Deputy Medical Superintendent : Aswin Kumar Associate Professors: Thomas Koilparambil, Susan Mathews, Asha Arjunan, Sajeed A, Kainikkal CT Assistant Professors: Arun Sankar S, Roshni S, Malu Rafi, Rajeev KR Senior Residents: Geethi MH, Aparna MP, Biju Azariah 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, Chest &

Gastrointestinal and Gynaec, Genitourinary & others. The Division managed 11493 new cases during the reporting period.

Clinical services

External radiotherapy was given for 7129 patients and brachytherapy for 1794 patients.

Specialised Radiotherapy Services			
Services	No.		
3D CRT	1294		
IGRT/IMRT	368		
SRS+SRT	21		
Total brachytherapy procedures	1749		
Image guided brachytherapy	240		

Academic activities

- MD programme in Radiotherapy with an annual intake of eight seats
- Organised 18th ICRO PG teaching course at Regional Cancer Centre on 27-28 September 2014
- Regular clinical posting for MD and PG diploma radiotherapy students of Government Medical College, Thiruvananthapuram

Ongoin	Ongoing Doctoral Research Programmes				
SI. No.	SI. No. Research Scholar Title of Study/University				
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

Paul Sebastian Professor and Director

Professor & Head: Iqbal Ahamed M Additional Professors: Shaji Thomas, Bipin T. Varghese, Paul Augustine, Chandramohan K, Elizabeth Mathew Iype, Balagopal PG

Associate Professors: Rema P, Kurian Cherian, Madhu Muralee, Arun Peter Mathew, Suchetha S Assistant Professor: Nebu Abraham George Senior Residents: Rexeena V. Bhargavan, Senthil Kumar



Surgical Oncology Division provides specialized site wise surgical expertise for primary treatment of majority of solid organ cancers. The Division could improve patient outcomes by effective utilization of manpower and resources and provided surgical care to more number of patients when compared to previous year.

Major achievements

- Two renovated state of the art operation theatres were commissioned
- The first batch of MCh Surgical Oncology students successfully completed their course in August 2014

Surgical & Endoscopic Procedures

The total number of patients who underwent major surgeries in the period under report was 4118.

Major Procedures

Sites	No.
Head and Neck	1383
Breast	1270
Gastrointestinal	738
Gynecologic	401
Genito-Urinary	129
Bone and sarcoma	197
Total	4118

Endoscopy Procedures			
Procedure	No.		
Nasopharyngolaryngoscopy	592		
Bronchoscopy	186		
Oesophagoduodenoscopy	1006		
Colonoscopy	534		
Total	2318		

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
- Organised the Fifth Indo-Singapore Conference ISCON 2015, as part of the ongoing collaboration with National Cancer Centre, Singapore, with Head and Neck Cancers as the theme, from 13-15 February 2015
- Training programme for MS, MD and MDS postgraduate students from Kerala and adjoining parts of Tamil Nadu and Karnataka

Minor Procedures	
Procedure	No.
Minor cases	2005
LEEP	48
Nasal & DL scopy	570
Total	2623

MEDICAL ONCOLOGY

Geetha N Professor & Head

Additional Professors: Sreejith Nair, Prakash NP Assistant Professors: Shruti Prem, Anoop TM Lecturers: Lakshmi Haridas, Abdul Shahid PP Resident Medical Officer: Lali VS Senior Resident: Sugeeth MT

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. 2602 patients were admitted for the administration of intensive chemotherapy and management of emergencies and complications. 200 new patients with chronic myeloid leukaemia were enrolled in the Novartis Patient Assistance (NOVA) programme and were given imatinib free of cost.

2413 new cases and 35,653 review cases were seen during the report period. In the BMT unit, stem cell transplantation following high dose chemotherapy was performed for 39 patients during the period under report.



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

The Division provides comprehensive cancer treatment for childhood malignancies up to the age of 14 years. 631 new cases and 23,424 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. As part of providing comprehensive paediatric care, services of counselor, 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 radiotherapy 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 organised for children and their parents during festivals like Onam, Christmas, New Year; Vishu, Deepavali and Children's Day. Monthly birthday celebrations are organised for pediatric patients with generous contribution from UST Global.

Visitors to this Division included Hon'ble Chief Minister Shri. Oommen Chandy, Hon'ble Minister for Health and Family Welfare Shri. V.S.Sivakumar, Television Artistes Shri. Dinesh Panicker and Miss. Gayathri Arun.



Patient Statistics Cases No. Acute Lymphoblastic Leukaemia 172 Acute Myeloid Leukaemia 43 2 Chronic Myeloid Leukaemia Brain tumour 96 18 Osteosarcoma Ewings sarcoma/PNET 16 17 Rhabdomyosarcoma 16 Hodgkin's lymphoma Non-Hodgkins lymphoma 28 Wilms' tumour 28 Neuroblastoma 40 Hepatoblastoma 9 Germ cell tumour 8 9 Retinoblastoma 2 Soft tissue sarcoma Τ Nasopharyngeal carcinoma 12 Thyroid 17 Langerhans cell histiocytosis Miscellaneous 20 Non malignant 75 2 Not Yet Diagnosed 631 Total

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 Lecturer:Sindhu Nair P Senior Residents: Jayasudha AV, Rari P. Mony

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. The division also provided external quality assurance reports to many private NABL accredited laboratories.



Major achievement

Started MD Pathology programme with an annual intake of two seats

Diagnostic Services

Surgical pathology	Cytopathology	Hae	matopathology	Total	
18785	22346		7741	48872	
Immunohistochemistry	Frozen section	FISH- Her-2	Flow cytometry	Total	
(Surgical pathology +					
Cytopathology + Haematopathology)	1				
21955	1093	83	733	23864	
Surgical Pathology					
Specimens from RCC	Specimens for Review	 Specimens 	for Second Opinion	Total	
86	6185		739	18785	
Cytopathology					
FNAC	Cervical smear		Sputum	Total	
9358	9463		3525	22346	
Haematopathology					
Bone marrow	Peripheral smear	S	lide review	Total	
4050	3560		3	7741	

Academic activities

- MD programme in Pathology, Post Doctoral Certificate Course (PDCC) in Oncopathology, Advanced Training Course in Histotechnology for Laboratory Technicians, Quality Excellence Programme for Technicians, Cytotechnology 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
- Guest lecture by Dr.Harish Karnam, Biomarker Scientific Liaison, Roche Products India Pvt Ltd.
 Topic: 'Pre-analytic and analytic phases along with trouble shooting instructions'. (30 June 2014)
- Guest lecture by Dr.Anita Borges. Topic: 'Molecular typing of breast cancer and its place in present day clinical pathology lab in India'. (18 October 2014)

IMAGEOLOGY

Ramachandran K Professor & Head

Additional Professor: Venugopal M Associate Professors: Jiji V, Sumod Mathew Koshy Lecturer: Anil Prahladan Senior Resident: Shriduth P



The Division has two 500 mA X-ray machines, five portable 60 mA units, three colour doppler ultrasound scanners, mammography-X-ray machines with stereotaxy, mammotome biopsy unit, 16 slice MD CT, 1.5T MRI scanner with MR spectroscopy, and digital mammography with prone biopsy table. There are facilities for breast disease diagnosis and MRI under anaesthesia.

Academic activities

- MD programme in Radiodiagnosis with an annual intake of two seats
- Advanced training in Diagnostic Imaging
- Organized a CME and State Conference of Indian Radiological and Imaging Association, at RCC from 21-22 March 2015
- The faculty participated in activities like Trivandrum Radiology Club, Neurooncology Club, Pulmonary Radiology in SUT, RCC Breast Clinic, etc.

Diagnostic & Interventional Studies		
Investigations	No.	
Plain X-rays	24,084	
Barium studies	286	
Ultrasound scans	9058	
Ultrasound guided intervention		
Ultrasound guided prostatic biopsy	4	
Doppler studies	426	
Digital mammography	6241	
CT scans	11,102	
CT guided aspiration	913	
MRI scans	2662	
Total	55997	

NUCLEAR MEDICINE

Pradeep VM Professor & Head

Additional Professor: Sreekumar A



The Division provides therapeutic and diagnostic services involving open radioactive sources. The Division has facilities for imaging (dual head SPECT Gamma camera) as well as for therapy (thyrotoxicosis and high dose therapy for thyroid cancer).

Diagnostic & Clinical Services	
Services	No.
SPECT Gamma camera imaging	6492
Radio immunoassay	52255
Thyroid cancer therapy	330
Thyrotoxicosis therapy	507

ANAESTHESIOLOGY

Rachel Cherian Koshy Professor & Head

Additional Professors: Mary Thomas, Venugopal A, Mallika Balakrishnan Associate Professors: Sudha P, Viji S. Pillai Assistant Professors: Bhagyalakshmi R, Rajasree O, Deepthi J. Prabhu, Subha R 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. Service and expertise were also provided for acute pain management, insertion of long and short term central venous access devices for non surgical cases, and care of patients who were critically ill and on ventilatory support in surgical ICU.

Major achievement

Received MCI approval to enhance the intake capacity for MD Anaesthesia programme from three to six.

Academic activities

- MD programme in Anaesthesia with an annual intake of three seats
- Organized 'IMPACT 2015' the first scientific programme on Oncoanaesthesia in South India on 25th January 2015
- Organized a three day American Heart Association Certified Basic Life Support and Advanced Cardiac Life Support training programme in association with the Indian Institute of Emergency Medical Services (15 - 17 August 2014)
- Weekly grand rounds, seminars, journal clubs and case presentations



Anaesthetic Services	
Pre-anaesthesia clinic	
New cases	4016
Review cases	6847
Total	10863
Anaesthesia Techniques	
Total Intravenous Anaesthesia	379
GA+Epidural	541
GA+Controlled Ventilation	2774
GA+Spontaneous Ventilation	28
Epidural block	51
Combined spinal + epidural	138
Subarachnoid Block	92
MAC	19
Endotracheal tubes	1889
Supraglottic airway devices	1094
Plexus & other blocks	26
GA + Block	38
Anaesthesia for children undergoing MRI,	
radiation therapy & CT simulation)	398
Anaesthesia for brachytherapy	6
Anaesthesia for OGD scopy	20
Surgical ICU	
Number of patients on ventilator	96
Total ventilator days	228
Acute pain service	
Number of patients with epidural catheters	738
Number of epidural days	2100

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 Lecturer: Sarin B

Activities of the Division include 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.



Major achievement

Started Post MSc Diploma in Radiological Physics with an annual intake of 4 seats.

Patient Services

Treatment given	No. of Patients
2D Radiotherapy	
CT based planning	1391
Conventional planning	4281
3D CRT	1294
IMRT+IGRT	368
SRS+SRT	21
Total	7355
Brachytherapy (Microselectron HDR)	
Gynaecologic	1427
Oesophagus	3
Image guided	240
Others	79
Total	1749
Grand total	9104
Simulation	
CT simulation	3905
Conventional simulation	4934

Ongoing Doctoral Research Programmes			
SI. No.	Research Scholar	Title of Study/University	Guide
1	Zhenia Gopalakrishnan	Evaluation of Radiotherapy Treatment Planning Systems	
		and different dose calculation algorithms for the	
		management of cancer/University of Kerala	Dr. Raghu Ram K. Nair
2	Divya KT	Evaluation of Patient specific Dosimetric Quality Assurance	
		Tools in Radiotherapy/University of Kerala	Dr. Raghu Ram K. Nair
3	Shaiju VS	Design and fabrication of a Head phantom for dosimetric	
		evaluation of radiotherapy treatment plans/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 activities of the Division include specimen collection, processing, analysis and reporting of various tests for both out-patients and in-patients. Many tests are being reported with appreciable turnaround time of 60 minutes or less through the bidirectional interfacing of all major analysers. The laboratory processed and analysed 3,45,255 samples consisting of 1,81,420 haematology, 1,32,667 biochemistry and 31,168 urine samples and generated 16,8000 test reports. Services were also provided for therapeutic drug monitoring for various drugs and serology for HIV and hepatitis.

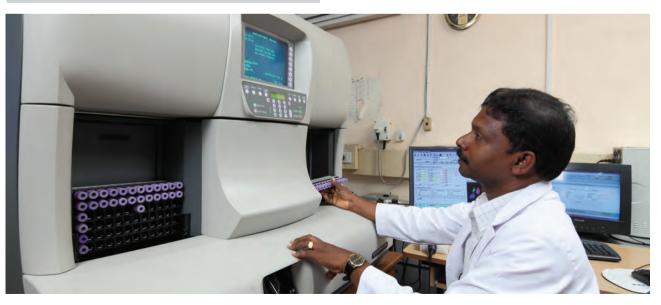
Quality assurance

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.

Investigations done

Investigations	No.
Biochemistry	845905
Haematology	676369
Coagulation parameters	15134
Urinalysis	85960
CSF (Sugar & Protein)	268
HbAIC	149
Lipid Profile	3696
Creatinine clearance test	1888
24 Hour urine protein	507
Cyclosporin	147
Methotrexate	1420
Serum Immunoglobulin Assay	
(IgG, IgA & IgM)	5892
Free Kappa	1752
Free Lambda	1747
Serum electrophoresis	1541
Immunofixation electrophoresis	444
Blood gas (ABG)	869
Serology	
HIV	11854
HBsAg	11992
HCV	11956

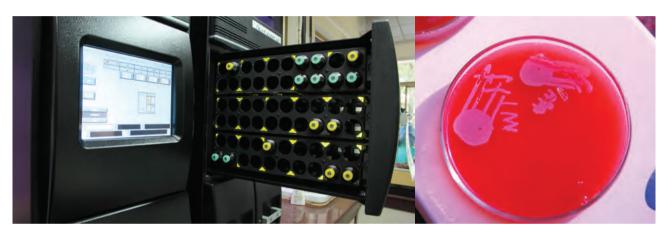
Training provided	
Trainees	No. trained
M.Sc. Biochemistry	3
B.Tech. Biotechnology	2
B.Sc. MLT/DMLT	20



MICROBIOLOGY

Swapna R. Nath Associate Professor & Head

Lecturer: Sagila SG



The Division provided state-of-the art microbiological services using BacT/ALERT automated blood culture system, VITEK 2 automated identification and sensitivity system and VIDAS, Enzyme Linked Fluorescent Assay system. The activities include Bacteriology, Mycology, Parasitology, Mycobacteriology and Serology. The division also supports the laboratory needs of infection control programs in RCC.

Training provided

- Classes for doctors and staff nurses on infection control
- Six months internship training for B.Sc. Medical Microbiology students
- Observership for BSc (Microbiology and MLT) students

Investigations done	
Culture, Sensitivity & Other tests	No.
Blood	9074
Exudate	1503
Urine	2200
Throat swab	1446
Sputum	1125
Aspirate	316
Stool	450
Surveillance culture	283
Cerebrospinal fluid	46
Acid-fast bacteria	50
Fungus	103
Widal test	13
Microscopy (Gram stain, AFB stain, KOH mount, et	tc.) 905
Serology	1306
Total	18,820

TRANSFUSION MEDICINE

Vijayalakshmi K Associate Professor & Head

Resident Medical Officer: Roshy G

The Division is a National Aids Control Organization (NACO) recognized Regional Blood Transfusion Centre with an annual blood collection of over 27,000 units. All collected units are separated into components, most of which are used up by patients in RCC, and the rest are issued to patients in hospitals in Thiruvananthapuram city. The Division also provided support for the Bone Marrow Transplant Unit by way of irradiated blood products and platelet apheresis, and performed 3432 blood irradiation and 103 apheresis during the period. The Division conducts outreach blood collection camps and provided induction training in blood bank procedures for new recruits coming from M/s Terumo Penpol Ltd.

Clinical services	
Components	No.
Irradiation done	3432
Apheresis done	103
Single Donor Plasma	98
Cryoprecipitate	20
Packed Red Cells issued	4, 64
Platelet concentrate issued	26613
Fresh Frozen Plasma issued	3902

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 conducted weekly tele-clinics in palliative care on Tuesdays with Karuna Bhavan at Adimali, and District Hospital, Kollam. The Division liaises with NGO's like 'Care Plus' to provide domiciliary care for registered patients. The regular running of the Division was supported by the Jiv Daya Foundation based in Texas, USA.

Patient services	
Cases	No.
New	3985
Review	11316
Tele-clinic consultations	180
Total	15,481

Academic activities

- Conducted a Continuing Medical Education programme as part of the World Palliative Care Day celebrations on 11 October 2014, which was inaugurated by Shri. James Varghese, IAS, Principal Secretary, Llocal Self Government, Govt. of Kerala
- Certificate course on Essentials of Palliative Care
- Hands on training in palliative care for doctors and nurses

DENTAL CARE

Gigi Thomas Additional Professor & Division-in charge



Routine activities included various approaches for the oral health and radiation protection of teeth of cancer patients. These included procedures such as oral prophylaxis, conservative therapy, occlusal adjustments, therapeutic management of pre-cancerous oral lesions, pre and postradiation care of teeth, pre-surgical care and reconstructive procedures like construction of maxillofacial prosthesis, management of patients undergoing BMT/stem cell therapy.

Patient Services	
Cases	No.
Total attendance	3647
New cases	741
Post radiation care	3403
Management of post chemotherapy problems	20
BMT/Stem cell therapy consultation	30
Management of precancerous lesions	15
Management of osteoradionecrosis	3

NURSING SERVICES

Sreelekha R Chief Nursing Officer

Nursing Superintendent: Flower Augustine

The Division renders patient care in wards, day care services, OPDs, high dependency units, operation theatres and speciality units. The Division is responsible for the care, safety, symptom control and rehabilitation of the patient. A new uniform was introduced to the Staff Nurses and Housekeeping staff during the period under report.

Clinical services

The division started a Head and Neck Rehabilitation clinic, which provided pre and post-operative counseling and teaching exercises for patients undergoing treatment for head and neck cancers. HDUs of general wards were equipped with motorized ICU beds.

Nursing services

Service	No.
Chemotherapy administration (OP)	81083
Central Venous Access Device Clinic:	
Peripherally Inserted Central Catheter (PICC)	
insertion	1192
Total patient visits	36200
Lymphoedema clinic (patient visits)	4380
Stoma clinic (patient visits)	3318
Head & Neck Rehabilitation clinic (patient visits)	
(Commenced on 16 Mar 2015)	139



Academic activities

- One day workshop on 'Caring Patients with Breast Cancer: Newer Insights' on 12 April 2014 was organized in association with Oncology Nurses Association of India (Trivandrum Chapter)
- Two days workshop on 'Nursing Competencies in Wound, Ostomy and Incontinence Management', from
 6 - 7 December 2014, organized in collaboration with Association of Enterostomal Therapist, India.
- CNE: Oncology Nursing update 2015 was conducted from 19-21 February 2015 (35 credit hours endorsed by KNMC)
- Short term training for stoma nursing care and Bone MarrowTransplantation nursing care were given to nurses from other hospitals
- Clinical training was offered to 1466 B.Sc. Nursing, 301 M.Sc. Nursing and 23 students of Certificate Course in Nursing Administration

CLINICAL SERVICES & MEDICAL RECORDS

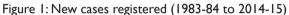
Chandrika D Medical Records Officer

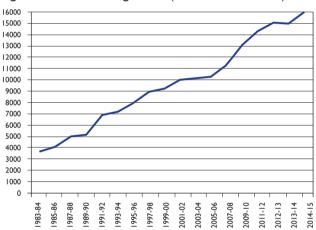
Assistant Administrative Officer (Clinical Services): Sreekumar B

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.

Hospital statistics	
ltem	No.
New cases	15,939
Review cases*	2,07,166
Total patient visits	2,23,105
Daily average	744
In-Patient admissions	10,847
In-Patient bed**	265
Total bed occupancy	80,889
Average bed occupancy	221
Bed occupancy rate	85.57
Average length of stay (days)	7
Hospital death	766
Telemedicine consultation	1568

- * Follow up at peripheral centres, tele-clinics, 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.





Patient Statistics

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	8573	53.78			
Μ	3630	22.77			
0	3736	23.45			
Total	15,939	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 differe	nt categories
Category	No.	%
F	2989	18.7
М	4460	27.9
0	2953	18.6
Р	234	1.4
R	1092	6.8
S	480	3.0
С	2786	17.6
Ν	36	0.2
К	909	5.8
Total	15,939	100

Review cases (Speciality clinic wise)				
Clinic	No.	%		
А	35653	17.20		
В	28180	3.60		
С	44842	21.65		
D	31234	15.10		
E	30697	4.8		
F	23424	.30		
G	13136	6.34		
Total	2,071,66	100		

New cases (Age & Sex wise)								
Age Group	Male	%	Female	%	Total	%		
0-14	359	4.6	315	3.8	674	4.2		
15-24	258	3.3	301	3.7	559	3.5		
25-34	335	4.3	668	8.1	1003	6.4		
35-44	701	9.0	1366	16.7	2067	12.9		
45–54	1442	18.6	2047	24.9	3489	21.8		
55-64	2164	27.9	1838	22.4	4002	25.2		
65-74	1787	23.3	1175	14.3	2962	18.5		
75+	698	9.0	485	5.9	1183	7.5		
Total	7744	100	8195	100	15,939	100		

New case	New cases registered (Religion wise)							
Religion	Male	%	Female	%	Total	%		
Hindu	4439	57.3	4928	60.1	9367	58.7		
Muslim	1753	22.6	6	19.7	3364	21.2		
Christian	1552	20.1	1656	20.2	3208	20.1		
Total	7744	100	8195	100	15,939	100		

New cases registered (Gender wise)									
Clinic	Α	В	С	D	E	F	G	Total	%
Male	1428	1839	247	1018	2598	337	277	7744	48.6
Female	985	710	2325	1728	1025	294	1128	8195	51.4
Total	2413	2549	2572	2746	3623	631	1405	15,939	100

F - Minimum payment

M - Subsidised payment

- O Normal rate
- P Private

R - Reimbursable

- S Cancer Suraksha Scheme
- C Comprehensive Health Insurance Scheme (CHIS +)
- N Rashtriya Arogya Nidhi (RAN) Scheme
- K Sukrutham Kerala

New cases	New cases registered (Speciality clinic wise)					
Clinic	No.	%				
А	2413	15.1				
В	2549	15.9				
С	2572	16.2				
D	2746	17.3				
E	3623	22.7				
F	631	3.9				
G	1405	8.9				
Total	15,939	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

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	3081	19.33
District/General hospitals	1192	7.48
Other Government hospitals	1589	9.97
VSSC/ECHS/ESI/CGHS/ Railway hospitals	738	4.62
ECDC and peripheral centres	29	0.18
Other Cancer Centres	124	0.78
Private doctors	935	5.87
Private hospitals	7248	45.47
International (Maldives+Middle East)	231	1.44
Self/RCC	772	4.85
Total	15,939	100

Referred cases (Geogra	phical area w	vise)	
Kerala	No.	%	
Thiruvananthapuram	3615	22.7	
Kollam	2802	17.6	
Pathanamthitta	932	5.8	
Alappuzha	898	5.6	
Kottayam	497	3.2	
Idukki	256	1.6	
Ernakulam	550	3.5	
Thrissur	883	5.4	
Palakkad	953	6.0	
Kozhikode	482	3.0	
Malappuram	1120	7.1	
Wayanad	3	0.7	
Kannur	364	2.3	
Kasargod	204	1.3	
Other States			
Tamil Nadu	1922	12.0	
Karnataka	12	0.1	
Lakshadweep	9	0.05	
Others	96	0.60	
International			
Maldives	229	1.44	
Middle East	2	0.01	
Total	15,939	100	

Training provided

- Nine candidates are undergoing training in Medical Records Training course, started in September 2014
- 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

Trainer-Trainee programmes		
Categories of Trainees	No. of	No.
	orogrammes	trained
Doctors	4	121
Nurses and paramedicals	6	130
Community Volunteers		
(NSS, ASHA, Kudumbasree voluntee	rs) 12	3170
Others (NCC Cadets, Jail Wardens,		
Pensioner's Group etc.)	7	800
Total	29	4221

Early Cancer Detection

For diagnostic evaluation and treatment of precancerous lesions, patients are referred to the Division from hospitals in public and private sectors. In addition to this, patients are also referred for procedures such as colposcopy, Pap smear, LEEP, cold coagulation and cryotherapy. Technical guidance and assistance are also given for the nodal centres of RCC in precancer management. In the current year, 3506 persons attended the Early Cancer Detection Clinic of the Division. The details of cancers and precancers detected from each clinic are given in the following tables.

Cancers and Pro	e-cancers detected	(No. screened: 3506)
Sites	Cancers	Precancers
Oral	145	244
Breast	89	
Cervix	41	165
Others	405	
Total	680	409
Colposcopy clin	nic	
Procedures don	ie	No.
Colposcopy	838	
Colpodirected b	80	
Cancers detecte	37	
Pap smear		2
Oral dysplasia c	linic	
Cases detected		No.
Leukoplakia		70
Oral submucous	40	
Benign lesions/co	onditions	34
Total		244

Ramani S. Wesley Professor & Head

Additional Professor: Gigi Thomas Assistant Professor: Jayakrishnan R

The 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 conducts trainer-trainee programmes, cancer awareness/education programmes and cancer detection camps on a regular basis. An early cancer detection clinic is also functioning in the division.

Cancer Control Activities

Human Resource Development

- Cancer awareness programmes: As part of cancer awareness programmes in the community, 52 programmes were conducted during the period. Around 7500 people attended these programmes which were given mainly for high school/higher secondary school students and teachers, office staffs, lay public and vulnerable groups like the tribal population, fishermen community, rural population, etc.
- International School of Colposcopy: Six doctors were given one-week hands on training and 53 BSc (MLT) students were given one day orientation programme on VIA,VILI and Colposcopy.
- Trainer-Trainee Programmes: 10 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. Nineteen programmes were conducted for community volunteers from organisations such as the Kudumbasree and ASHA, public health training students, teachers and school students from various districts of the state.

Cancer Outreach Programmes

Screening programmes for early detection of common cancers in the community viz. oral, breast and cervix were conducted in various places of the state. Sixty eight cancer detection camps were conducted in various parts of the State in which 5529 people underwent screening. This included 20 cancer education programmes and an equal number of cancer detection camps conducted in the tribal areas of Palakkad and Idukki districts.

Cancers & Pre-cancers detected in cancer	detection camps
No. of camps	88
No. screened	7154
Oral cancer	4
Breast cancer	2
Cervix cancer	1
Others	3
Benign lesions	46
Oral pre-cancer	268
Cervical pre-cancer	68

Other activities

Campaign against substance abuse in high schools and higher secondary schools of Thiruvananthapuram District: In collaboration with Jilla Panchayath, Thiruvananthapuram, TCC took up the initiative to campaign against substance threat in 10 schools of Thiruvananthapuram district. The programme was aimed at creating awareness on tobacco and alcohol abuse and also conducting group counseling sessions for vulnerable students exposed to these habits.

Voice of Tobacco Victims (VoTV), Kerala Chapter: The VoTV campaign (Kerala Chapter) under the presidentship of RCC director, is an ideal platform for tobacco victims to share their experiences on how tobacco use affected them and their families. The VoTV programme was conducted before the Hon. Speaker of the Kerala Legislative Assembly Shri. G. Karthikeyan (20 May 2014), Hon'ble Governer of Kerala, Justice (Retired) P. Sathasivam (31 December 2014) and before the Hon'ble Chief Minister of Kerala (12th February 2015) to raise the plight of the tobacco victims and how it affected their day-

to-day life. As a result of ourVoTV campaign, Government of Kerala has introduced tax on 'bidi' for the first time and the tax in Kerala is 14.5%. Kerala has also the highest cigarette tax in South India (30%).

School based intervention programmes against tobacco and alcohol consumption in high school/higher secondary schools: The objective of this programme, supported by State Health Systems Resource Centre, Government of Kerala, was to understand the patterns of tobacco and alcohol use among students and also to assess the effectiveness of school based intervention programmes.

World No Tobacco Day (31 May 2014): World No Tobacco Day was observed in collaboration with Sree Chitra Tirunal Institute for Medical Sciences and Technology, Regional Cancer Association, Alcohol and Drug Information Centre (ADIC-India), Kerala Voluntary Health Service and Tobacco free Kerala.

RCC also observed No Tobacco Month from 31st May to June 30th 2014 in which anti-tobacco awareness programmes were conducted for high school/higher secondary students of various schools in Thiruvananthapuram district.

Breast Cancer Awareness Month (October 2014): In connection with the Breast Cancer Awareness month in October 2014, an open forum was inaugurated by Dr. P. Kusumakumary, Additional Director, RCC on 18 October 2014. The forum was attended by oncologists and breast cancer survivors.

National Cancer Awareness Day (7 November 2014): The day observed in collaboration with Regional Cancer Association was inaugurated by Smt.Valsalakumary IAS, Executive Director, Kudumbasree Mission, Kerala State. A seminar was organized in this connection to empower community volunteers in cancer prevention activities.

World Cancer Day (4 February 2015): A project titled 'Swasthyam' to empower women volunteers for cancer prevention and control activities in the community was inaugurated as part of World Cancer Day. The programme presided over by Sri.V.S.Sivakumar, Hon. Minister of Health and Family Welfare, was inaugurated by Dr. M.K.Muneer, Hon. Minister for Panchayats and Social Welfare.

Ong	Ongoing Doctoral Research Programmes						
SI.	Research Scholar	Guide					
No.							
	Gigi Thomas						
		transformation potential in oral leukoplakia patients/					
		University of Kerala	Dr. Ravindran Ankathil				
2	Jayakrishnan R	Effectiveness of community based tobacco cessation	Dr. Antti Uutela				
		intervention in rural Kerala/ University of Tampere, Finland.	Dr. Aleyamma Mathew				

CANCER RESEARCH

Remani P Additional Professor & Head

Professor: Kannan S Associate Professors: Raveendran Pillai K, Sujathan K, Lakshmi S, Hariharan S Assistant Professor: Sreelekha TT

The Division is recognized for a blend of basic as well as translational research, PhD programmes, teaching and training of postgraduate students, patient care, etc. Various laboratories of the Division conduct both basic and applied research with the vision of undertaking and co-ordinating research of high caliber in basic and applied levels.

In the *Laboratory of Phytopharmacology*, the molecular mechanisms involved in the cell death induced by Deoxyelephantopin (DOE), a cytotoxic compound isolated from *Elephantopus scaber*, was elucidated. Flow cytometry, Spectrofluorimetry, TUNEL assay, Comet assay, DNA Fragmentation assay, Fluorescent staining, Western blot analysis and RT- PCR analysis revealed that DOE induced cell death in tumour cells via apoptosis. DOE activated both intrinsic and extrinsic pathways of apoptosis in different tumour cells.

The main research theme of the *Laboratory of Cell Cycle Regulation & Molecular Oncology* is deciphering the molecular mechanism of oral carcinogenesis and translation of the knowledge gained into the development of diagnostic and prognostic molecular markers for oral carcinoma. The lab also initiated a programme on uterine cervical cancer to study the microRNA expressional alterations with reference to the HPV infection status. Currently, research is going on in mechanism of cyclin D1 transactivation, characterization of transcriptomes of carcinoma of buccal mucosa and tongue, formulation of microRNA signature for oral cancers and on the aberrations ofTGFb-SMAD signaling pathway. In addition, the lab also started a new programme on the biology of NFkB and STAT3 in oral carcinoma.

The *Laboratory of Molecular Cytopathology and Proteomics* mainly focuses on identification of pre-operative markers of thyroid malignancies, early detection markers for lung and cervical cancers. We have characterized the pre-malignant and malignant cells in sputum with DNA replication



licensing proteins by immunocytochemistry. The significance of immunocytochemistry for the differential diagnosis of lung adenocarcinoma in sputum is being evaluated. We have evolved a protocol for reproducibly extract protein from cervical cells which is often mixed with viscous mucus and other non-cellular components. The differentially expressed proteins of cervical epithelial cells, squamous cell carcinoma and squamous intra epithelial cells of cervix are being characterized to define candidate markers for cervical intra epithelial lesions.

The *Laboratory of Molecular Medicine* is focusing the elucidation of cell signaling pathways in the development of breast cancer and the molecular mechanisms of multidrug resistance in ovarian cancer. The projects are supported by grants from DAE-BRNS and KSCSTE.

Cytogenetics & Molecular Diagnostics Laboratory is mainly concentrating on chromosomal abnormalities in various leukemias and identification of genetic markers for prognostic stratification of haematological malignancies. The lab also works on the identification of factors which cause resistance in CML patients treated with Imatinib Mesylate, identification of molecular markers in CML blast crisis patients, cytogenetic and molecular studies in inhabitants of high natural background radiation areas of Karunagappally Taluk, Kerala.

The *Laboratory of Biopharmaceuticals and Nanomedicine* has developed some exciting polysaccharide based nanoparticles from plant sources and prepared its nanoconjugates with conventional chemotherapeutic agents having minimal side effects. Such nanoparticles are ideal candidates for nanocarrier preparation in combination with chemotherapeutic agents for solid tumors. In order to expand innovation in the areas of Nanotechnology and Bioinformatics, two collaborations were acquired through signing MoA with National Institute of Interdisciplinary Sciences and Technology (NIIST, Govt. of India) and Indian Institute of Information Technology and Management, Kerala (IIITMK, Technopark).

New Equipments Acquired

Multicolor Karyotype Workstation	
Sensitive Electronic Digital Balance	Ι
Electronic Digital Balance	
Agarose Gel Electrophoresis Apparatus	
Western Blot Apparatus	2
Cooling Centrifuge	
Centrifuges	3
Spinot Digital Magnetic Stirrer	Ι

Diagnostic services provided	
Services	No.
Karyotype analysis	
Bone marrow samples	1149
Peripheral blood samples	60
Quantitative RT-PCR for bcr-abl	840
Qualitative RT-PCR for bcr-abl & pml-rara	534
Fluorescent In Situ Hybridization	511

Academic activities

- Four research scholars were awarded PhD.
- Training was provided for: MD/MS/DM students (Dissertation work) 35 M.Sc.(Biotech)/Life Science students (3 months project work) 47 B.Sc. (MLT) students 195

Ongoi	Ongoing Doctoral Research Programmes							
SI. No.	Research Scholar	Title of the Study/University	Guide					
Ι.	Farha AK	Molecular mechanisms involved in the cell death induced by						
		deoxyelephantopin, a sesquiterpene lactone from						
		Elephantopus scaber/University of Kerala.	Dr. P. Remani					
2.	Jestin K. George	Study of stem cell regulation and drug resistance in triple negative						
		Breast cancers/Bharathiar University	Dr. P. Remani					

3.	Dileep Kumar U	Studies on the biology of carcinoma of buccal mucosa and tongue/	
		University of Kerala.	Dr. S. Kannan
4.	Christo Rajan	Study of the significance of miRNA expression pattern in oral	
		carcinoma/University of Kerala.	Dr. S. Kannan
5.	Sinto MS	Biology of NFkB and STAT3 transcriptional factors in	
		oral carcinogenesis/ University of Kerala.	Dr. S. Kannan
6.	Shanone C. Pereira	Identification of biomarkers for the differential diagnosis of thyroid	
		malignancies in FNACs/M.S. University	Dr. K. Sujathan
7.	Veena VS	Study of biomarkers for lung cancer in sputum/ Bharathiar University	Dr. K. Sujathan
8.	Nimi GK	Study of galectins in triple negative breast cancers/M.S. University	Dr. K. Sujathan
9.	Saritha VN	Proteome analysis in squamous cell carcinoma and its precursor	
		lesions of cervix./ M.S. University	Dr. K. Sujathan
10.	Rajesh SV	Study of cell cycle regulatory proteins in thyroid nodules/MS University	Dr. K. Sujathan
11.	Shibitha Raj	Studies on role of PI3K/PTEN/AKT pathway and PTEN gene in	
		breast cancer/University of Kerala	Dr. S. Lakshmi
12.	Prabha Pillai	Role of signal transducers and activators of transcription in	
		breast carcinogenesis/University of Kerala	Dr. S. Lakshmi
13.	Sreeja R	Molecular analysis of multidrug resistance gene and its expression in	
		ovarian cancer/University of Kerala	Dr. S. Lakshmi
14.	Suresh Kumar V	Detection of nucleophosmin I gene mutations in AML patients and its	
		impact on treatment/University of Kerala.	Dr. S. Hariharan
15.	Aswathy CG	A study of gene expression profile in inhabitants of high background	
		radiation of Karunagappally, Kerala, India/Mahatma Gandhi University	Dr. S. Hariharan
16.	Krishnachandran R	Blastic transformation of chronic myelogenous leukemia: Cytogenetic	
		and molecular mechanisms orchestrating the	
		disease progression/University of Kerala	Dr. S. Hariharan
17.	Preethi G. Nath	Identification of Novel Prognostic markers in Pediatric Leukemia/	
		University of Kerala	Dr. S. Hariharan
18.	Manu M. Joseph	Studies on Tamarindus indica polysaccharide nanoparticle as	
		immunomodulatory/anticancer agent and as a	
		potent drug carrier/University of Kerala.	Dr.T.T. Sreelekha
19.	Sheeja Varghese	Studies on the molecular mechanisms of antitumour/	
		immunomodulatory polysaccharide from Mangifera indica/	
		University of Kerala.	Dr.T.T. Sreelekha
20.	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

CANCER EPIDEMIOLOGY & BIOSTATISTICS

Aleyamma Mathew Additional Professor & Head

Associate Professors: Jayalekshmi P, Latha PT, Preethi Sara George Assistant Professors: Padmakumary Amma G, Kalavathy MC

The division being the first research centre for Bio-statistics in Kerala, seven students are doing their doctoral research in Bio-statistics and Epidemiology. During the period underreport, the division organized two workshops on topics such as Research methodology, Design and Analysis of Clinical Trials and Knowledge enhancement in scientific writing, which were attended by 120 participants.

Hospital Based Cancer Registry (HBCR)

HBCR of RCC, Thiruvananthapuram is in its 33rd 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 15,939 new cases registered, 13,838 (87%) were invasive cancers (Table I & Figure 2). The division also published Hospital-Based Cancer Registry Report for the year 2011.

Population-Based Cancer Registry (PBCR), Thiruvananthapuram

PBCR, Thiruvananthapuram covering the entire district (3.3 million population) is in its 9th year under the network of NCRP of ICMR in 2014. The crude incidence rates per 100,000 males and females are 162 and 155 respectively for the year 2013 (Table 2). The division also published the first Population-Based Cancer Registry Report, Thiruvananthapuram district for the year 2012.

Cancer surveillance programmes

Surveillance programme on cancers of the breast, uterine cervix, and head and neck patients reporting to the RCC is in its 9th year in collaboration with NCRP. Computerized data of case-records with updated follow-up details on a total of 7447 female breast, 2172 cervix uteri and 11,835 head & neck cancer cases reported at RCC are available since the year 2006. 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 1940 persons. The division also conducted 108 cancer detection programmes in various parts of Thiruvananthapuram, Kollam and Pathanamthitta districts, in which 17,326 persons were screened. Pap smear was collected from 5948 women.

Cancers & pre-cancers detected in cancer detection camps			
No. of camps	108		
No. screened	17,326		
Oral cancer	15		
Breast cancer	9		
Cervix cancer	11		
Cervical pre-cancer	52		

Ongoing Doctoral Programmes							
SI. 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	Subha R. Nair	Risk prediction models for the development of					
		breast cancer/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 Papsmear 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				

Biostatistics

A series of bio-statistics classes with practical were conducted for the Post-graduates and Oncology Nursing students. Statistical analytical support was also provided.

Academic activities

Organized the following workshops

- Research Methodology & Knowledge Enhancement in Scientific Writing in collaboration with Centre of Excellence in Ayur Informatics & Computer Aided Drug Design, University of Kerala, at RCC from 28-29 April 2014
- Workshop on Design and Analysis of Clinical Trials & Knowledge Enhancement in Scientific Writing, at RCC on 4 March 2015

Table 1: Site-wise distribution of patient registration by gender: HBCR, Regional Cancer Centre, Thiruvananthapuram (2014-2015)								
ICD-10	Site	۲	1ale	Fer	nale	To	otal	
		No.	%	No.	%	No.	%	
C00	Lip	16	0.2	12	0.2	28	0.2	
C01	Base of tongue	28	0.4	3	0.0	31	0.2	
C02	Tongue	423	6.2	174	2.5	597	4.3	
C03	Gum	4	1.7	70	1.0	184	1.3	
C04	Floor of mouth	65	1.0	6	0.1	71	0.5	
C05	Palate	39	0.6	28	0.4	67	0.5	
C06	Other mouth	307	4.5	156	2.2	463	3.3	

C07	Parotid gland	35	0.5	24	0.3	59	0.4	
C08	Salivary gland	6	0.1	9	0.1	15	0.1	
C09	Tonsil	24	0.4	2	0.0	26	0.2	
CIO	Oropharynx	127	1.9	13	0.2	140	1.0	
CII	Nasopharynx	39	0.6	16	0.2	55	0.4	
CI2	Pyriform sinus	58	0.8	4	0.1	62	0.4	
CI3	Hypopharynx	46	0.7	28	0.4	74	0.5	
CI4	Pharynx unspecified	5	0.1	1	0.0	6	0.0	
CI5	Oesophagus	224	3.3	95	1.4	319	2.3	
CI6	Stomach	336	4.9	142	2.0	478	3.5	
CI7	Small intestine	13	0.2	6	0.1	19	0.1	
CI8	Colon	178	2.6	116	1.7	294	2.1	
C19	Rectosigmoid colon	47	0.7	22	0.3	69	0.5	
C20	Rectum	209	3.1	152	2.2	361	2.6	
C21	Anus & anal canal	7	0.1	8	0.1	15	0.1	
C22	Liver	221	3.2	54	0.8	275	2.0	
C23	Gall bladder	16	0.2	21	0.3	37	0.3	
C24	Other biliary tract	25	0.4	25	0.4	50	0.4	
C25	Pancreas	96	1.4	50	0.7	146	1.1	
C30	Nasal cavity	18	0.3	4	0.1	22	0.2	
C31	Accessory sinus	13	0.2	9	0.1	22	0.2	
C32	Larynx	234	3.4	13	0.2	247	1.8	
C33	Trachea		0.0	2	0.0	3	0.0	
C34	Lung	971	14.2	203	2.9	74	8.5	
C37	Thymus	2	0.0	5	0.1	7	0.1	
C38	Heart & mediastinum	15	0.2	7	0.1	22	0.2	
C40	Bone of limbs	50	0.7	28	0.4	78	0.6	
C41	Other bone	36	0.5	19	0.3	55	0.4	
C43	Skin melanoma	33	0.5	27	0.4	60	0.4	
C44	Skin other	67	1.0	68	1.0	135	1.0	
C47	Peripheral nerves	6	0.1	6	0.1	12	0.1	_
C48	Retroperitoneum	7	0.1	8	0.1	15	0.1	
C49	Connective tissue	2	1.8	76	.	197	1.4	
C50	Breast	18	0.3	1952	27.8	1970	14.2	
C51	Vulva			1/32	0.2	15	0.1	
C52	Vagina			26	0.2	26	0.2	
C53	Cervix uteri			471	6.7	471	3.4	
C54	Corpus uteri			245	3.5	245	1.8	
C55	Uterus, nos			37	0.5	37	0.3	
C56	Ovary			372	5.3	372	2.7	
C57	Other female genital organs			4	0.1	4	0.0	
\Box	Other remaie genital organs			4	0.1	4	0.0	

C61	Prostate	329	4.8			329	2.4	
C62	Testis	35	0.5			35	0.3	
C63	Other genital organs	4	0.1			4	0.0	
C64	Kidney	108	1.6	48	0.7	156	.	
C65	Renal pelvis		0.0				0.0	
C66	Ureter	6	0.1			6	0.0	
C67	Urinary bladder	165	2.4	19	0.3	184	1.3	
C68	Other urinary organs	2	0.0			2	0.0	
C69	Eye	13	0.2	11	0.2	24	0.2	
C70	Meninges		0.0		0.0	2	0.0	
C71	Brain	197	2.9	110	1.6	307	2.2	
C72	Spinal cord	6	0.1	6	0.1	12	0.1	
C73	Thyroid gland	265	3.9	1073	15.3	1338	9.7	
C74	Adrenal gland	7	0.1	4	0.2	21	0.2	
C75	Other endocrine gland	5	0.1	5	0.1	10	0.1	
C76	III defined sites	5	0.1	9	0.1	4	0.1	
C77	Secondary lymph node	85	1.2	20	0.3	105	0.8	
C78	Secondary resp.& digestive	35	0.5	43	0.6	78	0.6	
C79	Secondary Other sites	33	0.5	29	0.4	62	0.4	
C80	Primary unknown	34	0.5	19	0.3	53	0.4	
C81	Hodgkin's disease	93	1.4	55	0.8	148	1.1	
C82	Follicular NHL	63	0.9	32	0.5	95	0.7	
C83	Diffuse NHL	178	2.6	4	1.6	292	2.1	
C84	T-cell lymphoma	30	0.4	18	0.3	48	0.3	
C85	Other NHL	50	0.7	48	0.7	98	0.7	
C90	Multiple myeloma	160	2.3	110	1.6	270	2.0	
C91	Leukemia, lymphoid	207	3.0	108	1.5	315	2.3	
C92	Leukemia, myeloid	248	3.6	186	2.7	434	3.1	
C93	Leukemia, monocytic	50	0.7	39	0.6	89	0.6	
C94	Other specified leukaemia	12	0.2	6	0.1	18	0.1	
C95	Leukemia, unspecified	55	0.8	43	0.6	98	0.7	
C96	Other lymphoid neoplasm	17	0.2	12	0.2	29	0.2	
	Total (Invasive)	6826	100.0	7012	100.0	13,838	100.0	
	In-situ	13	1.4	60	5.1	73	3.5	
	Borderline malignancy	80	8.7	143	2.	223	10.6	
	Benign tumours	130	14.2	246	20.8	376	17.9	
	Non-neoplastic							
	(pre-malignant conditions & others)	267	29.1	339	28.7	606	28.8	
	Suspicious of malignancy	96	10.5	67	5.7	163	7.8	
	Diagnosis not confirmed	332	36.2	328	27.7	660	31.4	
	Total (Non-invasive)	918	100.0	1183	100.0	2101	100.0	
Total no	o. of patients	7744		8195		15,939		

Figure 2: System-wise (%) distribution of cancer patients by Gender: HBCR, Regional Cancer Centre, Thiruvananthapuram (2014-2015)

	Male N = 6826	System	Female N = 7012	
	3.0	Brain & Nervous System	1.7	
	19.7	Oral Cavity & Pharynx	7.7	
	3.9	Thyroid	15.3	
	18.3	Respiratory System	3.5	
$\left\{ \left(\right) \right\}$	0.3	Breast	27.8	
	8.2	Esophagus & Stomach	3.4	
\forall \langle \langle	11.9	Other Digestive Organs	6.6	
	4.1	Urinary Tract	1.0	
	5.9	Reproductive System	16.7	
	4.6	Bone, Conn. tissue & Skin	3.3	
	10.6	Leukaemia & Myeloma	7.1	
	6.2	Lymphoma	4.1	
4	3.3	All Others	2.3	



Annual Age-adjı	usted Incidence (AAR) Rate pe	r 100,000 p	persons of	f leading ca	ncer sites			
ICD-10 code	Site		Male				Female	
		#	CR	AAR		#	CR	AAR
C00-C06	Oral cavity	259	16.4	3.4		128	7.4	5.8
C01-02	Tongue	120	7.6	6.3		58	3.4	2.7
C03-06	Mouth	33	8.4	6.9		67	3.9	3.1
C09-14	Pharynx		7.0	5.7		23	1.3	1.1
C15	Oesophagus	64	4.0	3.2		23	1.3	0.1
CI6	Stomach	94	5.9	4.9		36	2.1	1.6
CI8	Colon	88	5.6	4.5		65	3.8	3.0
C19-21	Rectum	118	7.5	6.2		84	4.9	3.8
C22	Liver	104	6.6	5.4		19	1.1	0.9
C25	Pancreas	50	3.2	2.5		27	1.6	1.2
C32	Larynx	110	6.9	5.7		10	0.6	0.4
C33-34	Lung	335	21.2	17.3		106	6.1	4.7
C40-41,49	Bone & Connective tissue	59	3.7	3.5		39	2.3	2.0
C43-44	Skin	50	3.2	2.5		64	3.7	2.8
C50	Breast	27	1.7	1.4		759	43.9	34.2
C53	Cervix Uteri					146	8.5	6.5
C54	Corpus Uteri					113	6.5	5.2
C56	Ovary					161	9.3	7.3
C61	Prostate	171	10.8	8.9				
C64-66,68	Kidney etc.	59	3.7	3.1		19	1.1	0.9
C67	Urinary Bladder	91	5.7	4.8		17	1.0	0.8
C70-72	Brain & CNS	44	2.8	2.7		40	2.3	2.0
C73	Thyroid	65	4.1	3.6		258	14.9	12.5
C81-85,96	Lymphoma	119	7.5	6.3		69	4.0	3.2
C90	Multiple Myeloma	77	4.9	4.0		56	3.2	2.5
C91-95	Leukaemia	88	5.6	5.4		63	3.6	3.5
C00-96	All Sites	2566	162.1	134.9		2676	154.9	122.3

Table 2: Population Based Cancer Registry, Thiruvananthapuram District (2013): Number, Crude Incidence Rate (CR), Annual Age-adjusted Incidence (AAR) Rate per 100,000 persons of leading cancer sites

LIBRARY AND INFORMATION SERVICES

Vishnu V

Librarian cum Information Officer

The Division continued its activities to provide support for clinical, academic and administrative requirements of the Centre. The library is carrying out a wide spectrum of information services to its users.

Collection development

As in the past, high priority was accorded to the subscription to journals. The Division continued its subscription to ScienceDirect, Wiley online library, UpToDate, Ovid, Oxford University Press, Springer, Informa Health, Nature Publishing, AAAS and reprint procurement arrangement with DELNET.

Information sources	
Document type	Collection as
	on 31 March 15
Books, Monographs and Back Volumes	12,769
Current Journals	94
E-Books	69
E-Journals	86
Reprints	7083

Access to E-resources through National Cancer Grid

As a beneficiary under the National Cancer Grid programme of Govt. of India, the division enabled access to a good number of E-journals, E-books and multimedia resources.



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 is provided to each subscribed journal to enable direct access to full text of articles.

Support services

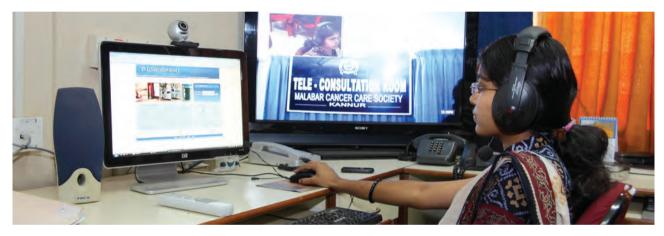
The Division handled all the audio-visual and reprographic requirements of the Centre. Compilation and editing works related to the publication of Centre's annual report (2013-14) were fulfilled and copies were distributed.



INFORMATION SYSTEMS

Neelima N Systems Manager & Head

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 50-60 patients per day, ECDC conducts 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 861 patients.

Screening services	
Services	No.
Awareness classes	60
Cancer detection camps	115
Persons screened	19,197

Clinical activities			
Tasks	ECDC	Camp	Total
Cervical smear	3227	4746	7973
Oral smear	191	146	337
Fine Needle			
Aspiration Cytology	3070	1835	4905
Sputum cytology	42		42
Fluid cytology	3		3

Cancers & Precancers detected					
Sites	ECDC	Camp	Total		
Oral	25		25		
Breast	189	4	203		
Cervix	6		6		
Thyroid	29		29		
Other malignancies	12	2	4		
Total	261	16	277		
Precancers	330	73	403		

EARLY CANCER DETECTION CENTRE (ECDC), PALAKKAD

Rekha SR (on leave) Resident Medical Officer

Creating cancer awareness among the public and cancer screening are the main functions of this ECDC. The Centre has organised 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 organisations. Programmes for the early detection of cervical cancer were conducted through mass screening at the District Hospital, Palakkad. Breast self examination and cytological evaluation of breast lesions were done for 2700 women. 'Meet the oncologist' programme, a joint venture with Fluid Control Research Institute, Palakkad was continued. Follow up clinics were conducted every three months and 240 patients attended.

Screening services	
Services	No.
Awareness classes	38
Cancer detection camps	60
Persons screened	11,932
Attendance at 'Meet the oncologist'	80
Follow ups	240

Clinical activities			
Tasks	ECDC	Camp	Total
Cervical smear	705	3208	3913
Oral smear	26	48	74
FNAC	37	113	150
Sputum cytology	7		7
Nipple discharge	9	19	28
Fluid cytology	6		6

Cancers & precancers detected						
Cases	Ca	ncer	Precancer			
	ECDC	Camp	ECDC	Camp		
Oral	14	4	70	84		
Breast	11	2				
Cervix	13	5	20	63		
Other malignancies	5	I				
Total	88	12	90	147		

NATURAL BACKGROUND RADIATION CANCER REGISTRY (NBRR), KARUNAGAPPALLY

Jayalekshmi P

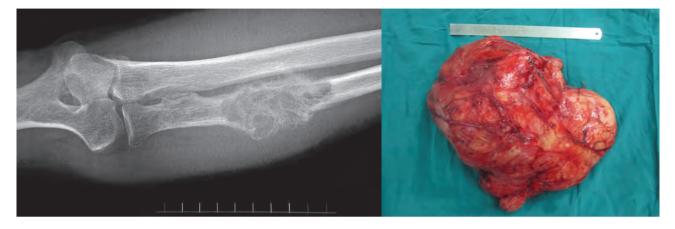
Associate Professor & Officer-in-charge

The Natural Background Radiation Cancer Registry (NBRR), an outreach centre of RCC, was started to evaluate the health effects of natural radiation present in the sea coast of Karunagappally Taluk, Kollam district of Kerala. NBRR carries out radiation epidemiologic studies on cancer and non-cancerous diseases, dosimetric studies and cytogenetic studies. 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	13	1170
Review clinics	6	459
Pain and palliative care clinic	Daily	10625
Field detection camps	47	4151
Pap smear screening	4245	
Other cytology investigations	228	
Cancer cases detected	65	

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 36 patients. Allogenic bone marrow transplantation for leukaemias was performed in 3 patients. Clinical training was given to postgraduate students of Radiation Oncology, Surgical Oncology and Medical Oncology of RCC and other Medical Colleges.

Clinical Procedures/Services Offered

Patients consulted	
Patients	No.
New cases	2413
Review cases	35,653
Total	38,066

Specialised services

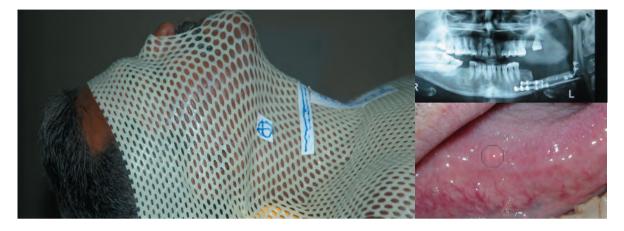
High Dose	Autologous	S	Allogenic	Chemotherapy
chemotherapy	BMT		BMT	
2000	36		3	20000
Major surgical procedures		:	212	
Radiation treatments		:	594	

Academic activities

Organzed 4th National Haematology Quiz, Kerala State Chapter and CME at RCC on 20 July 2014.

Observers/Visitors : 43





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 services included state-of-the-art radiotherapy including 3DCRT, IMRT, standard chemotherapy, cranio-facial resections, microvascular reconstructions and endoscopoc skull base surgeries. Brachytherapy treatment using high dose rate interstitial implantation, surface mould, etc. are also provided. The clinic also provides rehabilitation services to head & neck cancer patients through trained staff. Clinical training was given to post graduate students of Radiation Oncology, Surgical Oncology, ENT, Oral and Maxillofacial Surgery, General Surgery and Oral Medicine from various institutions.

Clinical Procedures/Services Offered

Patients consulted	
Patients	No.
New cases	2549
Review cases	28,180
Total	30,729

Radiotherapy

Radical			Palliative
3D CRT	IMRT	2D Planning	
2	86	965	280

Surgical Procedures

Oral	Laryngo-	Salivary	Sino-nasal	Others
cancers	pharyngeal	glands	cancers	
702	66	64	28	66

Chemotherapy

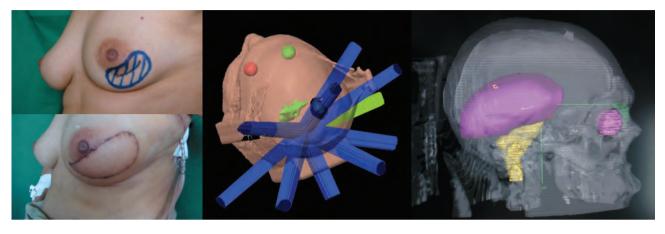
Concurrent Chemo-Radiotherapy	226
Neo-adjuvant chemotherapy	196

Academic activities

- Organised India-Singapore International Conference on Head and Neck Cancer at RCC from 13-15 February 2015.
- Head & neck tumour board

Observers/Trainees: 84 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. 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. Counseling regarding treatment side-effects and sequelae are imparted by well-trained nurses. The month of October was observed as breast cancer month and 589 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 Procedures/Services Offered

Patients consulted	
Patients	No.
New cases	2572
Review cases	44,842
Total	47,414

Radiotherapy

Radical				
Conformal	Conventional	IMRT	Stereotactic	Palliative
			Radiosurgery	
936	240	39	21	250

Surgical Procedures

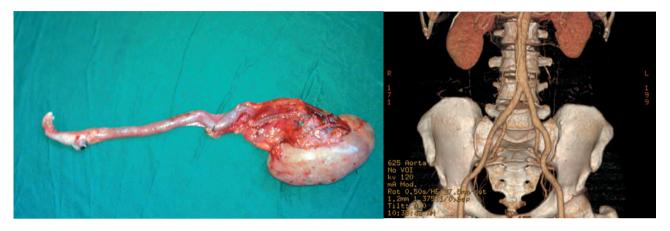
Mastectomy	Breast Conservation	Others
	& Oncoplastic	
	procedures	
813	256	201

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

Academic activities

Regular tumour board meeting in neuro-oncology with faculty from Medical College, Sree Avitom Thirunal Hospital and SCTIMST, Thiruvananthapuram.

'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. 240 3D image based optimized brachytherapy treatments were given. This clinic was actively involved in various clinical trials including pharma sponsored ones. 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 are conducted regularly.

Clinical Procedures/Services Offered

Patients consulted	
Patients	No.
New cases	2746
Review cases	31,234
Total	33,980

Radiotherapy

Radical			Palliative
3D CRT	IMRT	2D Planning	
84	107	575	470

Surgical Procedures

Gynaecological cancers			
Ovarian	200		
Endometrial	126		
Cervical	65		
Vulva	10		
Urological cancers			
Nephrectomy	24		
Penectomy	20		
Bladder	27		
Others	58		

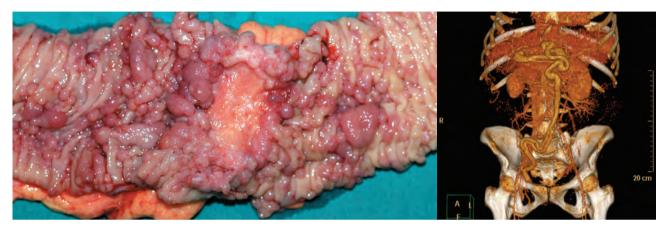
Chemotherapy

Concurrent chemo-radiotherapy	310
Neoadjuvant chemotherapy/Hormone therapy	220

Academic activities

Regular tumour board meeting in gynaecologic oncology and uro-oncology with faculty from Medical College, and Sree Avitom Thirunal Hospital, Thiruvananthapuram.

'E' CLINIC (CHEST & GASTROINTESTINAL)



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

Clinical Procedures/Services Offered

Patients consulted	
Patients	No.
New cases	3623
Review cases	30,697
Total	34,320

Radiotherapy

Radical				Palliative
Conformal	IMRT	CT/2D Plan	Brachytherapy	
272	136	550	3	600

Surgical procedures

Esophagus	Stomach	Hepatobiliary	Colorectal	Others
		& Pancreas		
58	4	26	325	15

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

Regular tumour board meeting in gastroenterology with faculty from Medical College and Sree Avitom Thirunal Hospital, Thiruvananthapuram

'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 programmes 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 Procedures/Services Offered

Patients consulted	
Patients	No.
New cases	631
Review cases	23,424
Total	24,055

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.

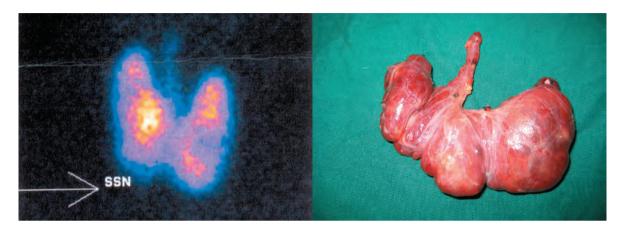
Surgical Procedures

Procedures	Number
Intrathecal medication	2336
Lumbar puncture	511
Bone marrow aspiration/biopsy	1108
PICC line insertion	84
PICC line dressing & resuturing	1694
Trucut biopsy	21
FNAC	30
Pleural/ascitic tapping	5
Chest tube insertion	2
Ventilator support	19
Wound C & D, aspiration for C & S	32

Patient support services

Services	Number
Loading IT medication (pharmacist)	2219
Chemotherapy drugs preparation	
and loading (pharmacist)	1538
Pharmacy counseling	22045
BG paint preparation and dispensing	14900 ml





'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 Procedures/Services Offered

Nucl	ear	Medicine	services
	ou.	carcine	

Immunoassays	SPECT	Radio-iodine Therapy	
	Gamma camera	Thyroid	Thyrotoxicosis
		Cancer	
52255	6492	330	507

Patients consulted	
Patients	No.
New cases	1405
Review cases	3, 36
Total	14,541

Surgical Procedures

Total	Hemi	
Thyroidectomy	Thyroidectomy	
225		

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 (Akshayapathra) has been organised with the help of several individuals and philanthropic organizations.

Cancer Awareness Programmes

Breast cancer awareness campaign was organized in October 2014. A special issue on cancer was published by Mathrubhumi Arogyamasika and Prabhatharesmi magazine with the support of PR wing. Asianet TV channel aired activities of Paediatric Oncology division in their programme 'Ningalkkumakam Kodeeswaran'. All India Radio and various TV channels aired awareness programme on cancer with the support of PR wing. Classes were conducted in different parts of the State to increase awareness about various patient welfare schemes.

Training provided

- 2nd batch of Receptionist Trainees successfully completed one year training and 3rd batch Training Programme was started in July 2014. Eight candidates are undergoing training.
- Public relation and communication orientation classes were conducted for various students and trainees in MSW, MHA, MBA, Medical Documentation, Public Relations & Journalism etc.

Honours, Awards and Recognitions Received

Aravind SR (Research Scholar), received Young Scientist Award at the 'International Conference on Biosciences: Stateof –the –art Advancements' held at Kumarakom, 11 - 12 September 2014.

Biba VS (Research Scholar), received Young Investigator Award at the 'International Conference on Biosciences: State- of-the-art Advancements' held at Kumarakom, 11 - 12 September 2014.

Biba VS (Research Scholar), awarded PhD by University of Kerala for the thesis, 'Antimicrobial, Antitumour and Antioxidant Properties of *Annona squamosa* (Annonaceae)'. (December 2014)

Chandramohan K (Additional Professor), received Association of Surgeons of India Travelling Fellowship 2014.

Chandramohan K (Additional Professor), received ASI Kerala Chapter Research Grant

Cherian M. Koshy (Additional Professor & Head), Member of three member Advisory Committee constituted by State Drugs Controller to inspect Hospitals for grant of license for procuring and dispensing oral morphine.

Dhanya AS, First rank in the Post Basic Diploma in Oncology Nursing Examination conducted by Kerala Nurses and Midwives Council, October 2014.

Dhanya GS (Research Scholar), awarded PhD by University of Kerala for the thesis, 'Bioactivity studies of *Solanum trilobatum* L'. (September 2014)

Geetha N (Professor), Member of the expert committee, New Drugs Advisory Committee of Drugs Controller General of India (DCGI), Ministry of Health & Family Welfare, Govt. of India.

Geetha Kumari D (Staff Nurse), awarded scholarship in the 16th National & 3rd International Oncology Nursing Conference, 13-15 November 2014, Tata Memorial Hospital, Mumbai. Jayakrishnan R (Assistant Professor), member of the abstract committee, 3rd National Conference on Tobacco or Health, 15-17 December 2014, Tata Memorial Hospital, Mumbai.

Madhu Muralee (Associate Professor), received ASI Betadine Young Surgeon Award, at the ASI National Meet held at Hyderabad, December 2014.

Preethi Sara George (Associate Professor), awarded Post Graduate Diploma in Epidemiology - Distance Learning (PGDEPI-DL) with Grade A+ from Indian Institute of Public Health, Delhi (2014).

Priyakumari T (Additional Professor), awarded PhD by University of Kerala for the thesis 'Molecular Genetics of Pediatric Acute Lymphoblastic Leukemia in Kerala and their effects on the treatment outcome.' (September 2014)

Santhi S (Research Scholar), awarded PhD by University of Kerala for the thesis, 'Prognostic significance of chromosomal aberrations and FLT3 gene mutation status in patients with Acute Myeloid Leukaemia'. (March 2015)

Sinto MS (Research Scholar), received best poster award at the 27th Kerala Science Congress held at Alappuzha, 27 – 29 January 2015.

Sivadas VP (Research Scholar), awarded PhD by University of Kerala for the thesis, 'Molecular dissection ofTGF-B/SMAD signalling pathway in oral carcinoma' (November 2014)

Sumod Mathew Koshy (Associate Professor), received Melpadam Attumalil Georgekutty Young Scientist Award instituted by Malankara Marthoma Syrian Church.

Surendran Nair V (Public Relations Officer), received 'Daya Award' instituted by Daya Charitable Trust, for the contribution in the field of cancer awareness.

Susan Mathews (Associate Professor), received ICRETT fellowship for training at Peter MacCallum Cancer Centre, Melbourne, from 1-30 June 2014.

Functions, Workshops & Conferences Organized

SI. No.	Name of Programme	Date
١.	CNE on Oncology Nursing for Registered Nurses: Caring Patients	
	with Breast Cancer: Newer Insights	12 April 2014
2.	Workshop on 'Research Methodology and Knowledge	
	Enhancement in Scientific Writing'.	28-29 April 2014
3.	4th National Haematology Quiz & CME (Kerala Chapter)	20 July 2014
4.	Basic Life Support and Advanced Cardiac Life Support Course	15-17 August 2014
5.	Upgradation of RCC as State Cancer Institute and Declaration of	
	NABH Accreditation Status	19 September 2014
6.	18th Indian College of Radiation Oncology PG Teaching Programme: 'Cancers	
	of Oesophagus, Stomach and Rectum'. (ICRO-AROI Teaching Course Series)	27-28 September 2014
7.	Word Palliative Care Day	II October 2014
8.	National Cancer Awareness Day	7 November 2014
9.	Nursing Competencies in Wound, Ostomy and	
	Incontinence Management: Annual Conference	6 – 7 December 2014
10.	National Conference on Anaesthesia for Cancer Surgery	25 January 2015
11.	India-Singapore International Conference on Head and Neck Cancer	13-15 February 2015
12.	Workshop on Design and Analysis of Clinical Trials & Knowledge Enhancement	
	in Scientific Writing	4 March 2015
13.	CME and State Conference of Indian Radiological and Imaging Association	21-22 March 2015

Distinguished Visitors/Talks delivered

SI. No.	Visitor/Talk delivered	Date
1	Sri. Oommen Chandy, Hon'ble Chief Minister of Kerala	29 May 2014
2	Sri. Harsh Vardhan, Hon'ble Union Minister for Health and Family Welfare	19 September 2014
3	Dr. Federik Kaye, Division of Hematology Oncology, University of Florida College of Medicine, USA.Talk: 'AMPK/CRTC1 circuit in lung cancer identifies a new link between metabolism, aging and cancer'.	3 November 2014
4	Dr. James He'bert, founding Director of South Carolina Statewide Cancer Prevention & Control Program, USA. Talk: 'India in transition: Are apparent increase in cancer rates real?'	3 November 2014
5	Dr. Mark Sedler, Associate Dean for Global Medical Education, Stony Brook University, New York, USA.	14 January 2015



Visit of Hon'ble Chief Minister Shri. Oommen Chandy (29 May 2014)



Upgradation of RCC as State Cancer Institute and Declaration of NABH Accreditation Status by Dr. Harsh Vardhan, Hon'ble Union Minister for Health and Family Welfare (19 September 2014)





Inauguration of Workshop on Research Methodology and Knowledge Enhancement in Scientific Writing by Dr. Paul Sebastian, Director, RCC (28 April 2014)



Inauguration of Basic Life Support and Advanced Cardiac Life Support Course by Dr. P. Kusumakumary, Additional Director, RCC (15 August 2014)



Inauguration of the 18th Indian College of Radiation Oncology PG Teaching Programme by Prof. M. Krishnan Nair (27 September 2014)



Observance of World Palliative Care Day, inaugurated by Shri. James Varghese, IAS, Principal Secretary, Local Self Government Department, Govt. of Kerala (11 October 2014)



Observance of National Cancer Awareness Day, inaugurated by Smt.Valsala Kumari, IAS, Executive Director, Kudumbasree Mission (7 November 2014)



Inauguration of the Annual Conference on Nursing Competencies in Wound, Ostomy and Incontinence Management, by Dr. Paul Sebastian, Director, RCC (6 December 2014)



Dr. Mark Sedler, Associate Dean for Global Medical Education, Stony Brook University, New York, USA on his visit to RCC (14 January 2015)



National Conference on Anaesthesia for Cancer Surgery (25 January 2015)



Workshop on Design and Analysis of Clinical Trials and Knowledge Enhancement in Scientific Writing (4 March 2015)



CME and State Conference of Indian Radiological and Imaging Association (21 March 2015)

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

INTERNATIONAL

SI. No.	Delegate/Speaker	Conference/Meeting	Date & Venue	Paper/Talk/Poster/Delegate's status
Ι	Anil Prahladan	European Congress of Radiology 2015	4-8 Mar 2015, Austria Centre, Vienna, Austria	 Talks: I. 'Complete response to neoadjuvant chemoradiation in locally advanced rectal cancer: Will DW MRI hold the key to deciding non-surgical management?: Report from a tertiary care cancer hospital'. 2. 'Multiparametric MRI of prostate: can it serve as a screening tool for cancer detection?: Tertiary care cancer hospital experience from South India'. 3. 'Radiology of ribs: Spectrum of normal variants and pathological conditions: Emphasis on chest radiograph'.
2	Anil Prahladan, Sumod Mathew Koshy	The New Era in Diagnosis and Treatment of Breast diseases organized by Mammography Education inc. (Prof. Laszlo Tabar)	10-12 Dec 2014, Turin, Italy	Delegates
3	Bipin T.Varghese	World Cancer Congress of the UICC,	Dec 2014, Melbourne, Australia	E-poster: 'Implementation of 3 consecutive ICRETT training programmes in a low resource high volume tertiary referral Indian cancer centre'.
4	Cherian M. Koshy	4 th World Congress of Regional Anesthesia and Pain Therapy	24-28 Nov 2014, Cape Town, South Africa	Delegate
5	Elizabeth Mathew lype	International Federation of Head and Neck Oncologic Society (IFHNOS) Meeting	27-31 July 2014, New York	Delegate
6	Francis V. James	15 th Biennial Meeting of the International Gynecologic Cancer Society	8-11 Nov 2014, Melbourne, Australia	Poster:'Cancer of the uterine cervix : Pattern and outcome from a Regional Cancer Centre in South India'.
7	Jayakrishnan R	6 th Asian Oncology Summit	11-13 Apr 2014, Kuala Lumpur, Malaysia	Paper: 'Strengthening tobacco control through community based interventions in rural South India'.
8	Jayakrishnan R	16 th World Conference on Tobacco or Health	17-21 Mar 2015, Abu Dhabi, UAE	Paper:'Predictors and quit outcomes of a multi-component community intervention programme for smoking cessation in rural Kerala, India'.

9	Jayaprakash PG	15 th Biennial Meeting of the International Gynecologic Cancer Society	8-11 Nov 2014, Melbourne, Australia	Poster:'Outcome of cancer cervix: impact of better radiation therapy'.
10	Jayaprakash PG, Francis V. James	Advanced Prostate Cancer Consensus Conference	12-14 Mar 2015, St.Gallen, Switzerland	Delegates
	Paul Sebastian	6 th Asian Oncology Summit 2014	11-13 Apr 2014, Kuala Lumpur, Malaysia	Talk: 'Delivering affordable and equitable cancer care in India'.
12	Paul Sebastian	WHO/EMRO Meeting on Cancer Control	21 - 22 Jul 2014, Cairo, Egypt	Talk:'Access to cancer care'.
13	Paul Sebastian	8 th International Conference on High Levels of Natural Radiation and Radon Areas	I- 5 Sept 2014, Prague, Czech Republic	Talk: 'Background radiation and circulatory disease mortality in Kerala, India: Karunagappally cohort study'.
14	Priyakumari T	Pediatric Oncology Training Programme	I -30 Jun 2014, St. Jude Children's Research Hospital, USA	Delegate
15	Rachel Cherian Koshy	4 th World Congress of Regional Anaesthesia and Pain Therapy	24-28 Nov 2014, Cape Town, South Africa	Paper:'Efficacy of para vertebral block in patients undergoing breast surgery under GA'.
16	Raghukumar P	6 th Muscat International Oncology Conference & 3 rd Oman Cancer Association Conference	30 Nov- 1 Dec 2014, Muscat, Oman	Paper :'B-R Spacer balloon: A novel device for reducing dose to bladder and rectum in brachytherapy'.
17	Rekha A. Nair	17 th Meeting of European Association for Haematopathology	17-22 Oct 2014, Istanbul, Turkey	Case and paper presentation: 'Chronic lymphoproliferative disorders: A two year study from a tertiary cancer centre in South India'.
18	Remani P	3 rd International Conference of Life Science and Engineering (ICNSE 2014)	5-7 May 2014, Kyoto, Japan	Paper:'Antitumour effects of active principle isolated from the seeds of Annona squamosa on human and murine cancer cells'.
19	Saju B	6 th Muscat International Oncology Conference & 3 rd Oman Cancer Association Conference	30 Nov- 1 Dec 2014, Muscat, Oman	Paper: 'Quality assurance of VMAT Treatment'.
20	Sunithakumari R	USG guided PICC Training Programme	2-13 Jun 2014, Sir Run Run Shaw Hospital Medical School, Zhejiang University, China	Delegate
21	Susan Mathews	Regional Training Course on 3D Image guided Brachytherapy for Cervical Cancer Advanced Course (IAEA)	23-27 Mar 2015, Singapore	Delegate

NATIONAL

SI.	Delegate/	Conference/Meeting	Date & Venue	Paper/Talk/Poster/Delegate's status
No.	<mark>Speaker</mark> Ajila S	Geriatric Care Conference	17 Feb 2015 KSIHAFW, Thiruvananthapuram	Talk: 'Care of terminally ill'.
2	Aleyamma Mathew	CNE on Breast Cancer	12 April 2014 RCC	Talk: 'Global Trends in Breast cancer incidence and mortality'.
3	Aleyamma Mathew	Research Methodology & Knowledge Enhancement in Scientific Writing	28-29 Apr 2014, RCC	Talk: I. 'Study designs in bio-medical research'. 2. 'Sample size in bio-medical research'. 3. 'Scientific writing: an overview'. 4. 'Ethical considerations in the conduct of research and publications'.
4	Aleyamma Mathew	Workshop on Research Agenda Setting on Chronic Respiratory Diseases	I June 2014, Health Action by People, Thiruvananthapuram	Talk: 'Development of a disease registry with emphasis on interstitial lung disease registry'.
5	Aleyamma Mathew	ICMR Meeting	I I th and 26 th July, 2014, ICMR, New Delhi	Talk: 'Comparative study of genetic, clinical and epidemiological factors of breast cancer in urban and rural area in India'.
6	Aleyamma Mathew	ICMR, Meeting	I Aug 2014, New Delhi	Talk: 'Burden of disease study'.
7	Aleyamma Mathew	NCRP XXX Annual Review Meeting (ARM)	17-18 Dec 2014, Adayar Cancer Institute, Chennai	Presented annual reports of HBCR, PBCR, Trivandrum & surveillance programmes
8	Aleyamma Mathew	Workshop on Design and Analysis of Clinical Trials & Knowledge Enhancement in Scientific Writing	4 Mar 2015, RCC	Talk: 1. 'Overview of clinical trials'. 2. 'Sample size and Power of a study'. 3. 'Statistical analysis of clinical trials'. 4. 'Knowledge enhancement in scientific writing'.
9	Anila KR	44 th Annual Conference of Indian Academy of Cytologists	13-16 Nov 2014, Kota Government Medical College	Paper:'Cytological evaluation of enlarged lymph nodes: experience from tertiary cancer centre'.
10	Anupama Susmitha	A Commitment To Excellence Pre Conference Certificate Course on Nutrition In CCU	5 Feb 2015,Govt College of Nursing, Thiruvananthapuram	Talk: 'Nutritional management in patients receiving chemotherapy and radiation therapy'.
	Anupama Susmitha	Geriatric care	16 Feb 2015, KSIHAFW, Thiruvananthapuram	Talk: 'Assessment of Pain'.
12	Anupama Susmitha	Conference on Cancer care	27 Mar 2015, Gov. Medical College Hospital, Calicut	Talk: 'Safe administration and handling of chemotherapy'.
13	Aravind S R	International Conference on Biosciences: State of the Art Advancements	11-12 Sep 2014, Kumarakom	Paper:'Transcriptomic analysis of cell death mechanisms of galactoxyloglucan polysaccharide to target apoptosis'.

14	Biba VS	International Conference on Biosciences:	11-12 Sep 2014,	Paper: 'Antiproliferative, apoptotic
		State of the Art Advancements	Kumarakom	and chemopreventive efficacy of
				a novel compound from Annona
				squamosa'.
15	Biba VS	34 th Annual Convention of Indian	19-21 Feb 2015, Jaipur,	Paper:' Active principles from
15		Association for Cancer Research.	Rajasthan	Annona squamosa seeds induce cell
		Association for Cancel Research.	l vajasti la l	growth arrest and apoptosis in lung
				adenocarcinoma cells'.
			2.2.6	
16	Bindhu Rani PV	National Conference On Quality And	2-3 Sep 2014,	Talk:'Infection control practices'.
	PV	Safety In Nursing Practices And Patient	The Salvation Army	
		Care Delivery	Catherine Booth College	
			of Nursing, Nagercoil	
17	Binitha R	PHOCON 2014	11-12 Oct 2014, Chennai	Talk: 'Profile of infections during
				induction chemotherapy for acute
				lymphoblastic leukemia: experience
				from a tertiary care centre South
				India'.
18	Bipin T.Varghese	FHNO National Conference	Sept 2014, Chandigargh	Talk: 'Prevention and management
				of complications in surgical
				management of thyroid cancers and
				panelist at the session on thyroid
				cancers'.
19	Cherian M. Koshy	International Conference on Essentials in	7 Feb 2015, Munnar	Key note address on palliative care
	,	Pain Management		
20	Cherian M. Koshy	CME on Palliative Care and Pain	30 Jan 2015, IPMER,	Talk: 'Role and relevance of the Step
		Management	Pondicherry	Ladder , in pain management'.
21	Elizabeth Mathew	Indo-Singapore conference on Head and	13-15 Feb 2015,	Faculty for the live surgery
		Neck Cancer	RCC	
22	Geethakumari BS	Geriatric Care	19 Feb 2015	Talk: 'Colostomy care'.
			KSIHAFW,	
			Thiruvananthapuram	
23	Guruprasad CS	PHOCON 2014	- 2 Oct - 2 20 4,	Poster:'Ímmunotherapy Vs
			Chennai	stem cell transplant in high risk
				neuroblastoma'.
24	Hariharan S	Seminar on Human Genome	31 Jan 2015,	Talk 'Ethical issues in genetic testing'
			Thiruvananthapuram	
25	Jayakrishnan R	3 rd National Conference on Tobacco or	15-17 Dec 2014, Mumbai	Paper: 'Smoking patterns, nicotine
		Health		dependence and quit attempts of
				male smokers in rural Kerala'.
26	Jayalekshmi P	Annual Review Meeting of NCRP (ICMR)	18-19 Dec 2014, Chennai	Talk: 'Quality of cancer registry data
	,		Adayar Cancer Institute	and completeness of coverage: DCR,
			,	Kollam'.
27	Jayasree CG	3rd National Conference of INS India	21-22 Nov 2014,	Paper: 'Monitoring extravasation of
			AIMS, Kochi	chemotherapy drugs: A best practice'.
28	Jayasree K	VICTORYPATH 2014	June 2014,	Faculty
	- '		Medical College,	Slide seminar on cytology
			Thiruvananthapuram	/ ****0/
29	Jayasree K	CYTOCON 2014: Workshop on Cervical	16 Nov 2014	Faculty
	, ,	cytology & CME on Ancillary techniques	Kota, Rajasthan	Talk: 'Cyto-histopathological
		in Cytology		correlation of squamous
		-,		intraepithelial lesions of cervix'.

30	Jayasree K	Trivandrum Oncology Club meeting	27 Feb 2015,	Faculty
		, c, c	Thiruvananthapuram	Talk: 'Pathology of soft tissue tumours'.
31	Jayasudha	APCON 2014 Annual Conference of IAPM	Dec 2014, Pune	Paper:'Acute megakaryoblastic leukaemia: study from a tertiary care centre'.
32	Kalirajan	68 th Annual Conference of Indian Radiological and Imaging Association	29 Jan-1Feb 2015, Kochi	Paper:'Multiparametric MRI imaging in Ca prostate'. Poster:'Radiology of ribs'.
33	Kusumakumary P	PHOCON 2014	11-12 Oct 2014, Chennai	Faculty Chaired session on – Febrile neutropenia
34	Kusumakumary P	PEDHOCON 2014: IAP Pediatric Hematology Oncology Chapter	11 May 2014, Alappuzha	Faculty Talk: 'What's new in lymphoma/ leukemia?'
35	Kusumakumary P	INPOG meeting	19 Jul 2014, Mumbai	Faculty Talk: 'Neuroblastoma: epidemiologic data from RCC'.
36	Kusumakumary P	CME on Childhood Cancers	15 Oct 2014, Kochi	Faculty Talk :'Approach to solid tumours'.
37	Lakshmi S	34 th Annual Convention of Indian Association for Cancer Research.	19-21 Feb 2015, Jaipur	Paper: 'Cyclooxygenase-2 expression in squamous cell carcinoma of the larynx: association with clinicopathological factors and treatment outcome'.
38	Lakshmi S	COGS Annual CME 2014	6 Dec 2014, Kochi	Talk :'HPV genotypes causing cervical cancer in India'.
39	Lizyamma Jacob	A commitment to excellence: Criticare Nursing 2015	6-7 Feb 2015, Govt. College of Nursing, Thiruvananthapuram	Talk: 'Quality indicators in critical care ICU'.
40	Madhu Muralee	ASI state conference	Calicut	Talk: 'Recent trends in early breast cancer'.
41	Madhu Muralee	ASI national conference	Dec 2014, Hyderabad	Panel discussion on thyroid cancers. Debate on non operative management of carcinoma rectum. Debate on preoperative CTRT in all rectal cancers.
42	Manjusha Nair	1 st SIOP-PODC International Pediatric Oncology Nutrition workshop	Sep 27-28, 2014 Mumbai	Faculty Talk: 'South Indian recipes for nutritional support of the cancer child'
43	Manjusha Nair	ISNOCON 2015	26-29 Mar 2015, Mumbai	Poster:'Infant brain tumours: Experience from a tertiary cancer centre in India'.
44	MaryThomas	Impact 2015: Oncoanaesthesia CME	25 Jan 2015, RCC	Organising Secretary Chaired session
45	Neha	ISPR – National Conference	12-13 Sept 2014, CMC, Vellore	Paper:'CNS complications in pediatric leukemia: CT/MR imaging'. Poster:'Ewing's sarcoma rare presentations'.

46	Neha	68 th Annual Conference of Indian	29 Jan-1Feb 2015, Kochi	Poster: 'Vivid spectrum of Ewing's
		Radiological and Imaging Association		sarcoma'.
47	Neha	RARE – 2015	18-21 Feb 2015, Chennai	Poster:'Rare presentation of a common tumour'.
48	Nidhi G. Krishna	34 th Annual Convention of Indian Association for Cancer Research.	19-21 Feb 2015, Jaipur	Paper: 'MDR-1 Gene Polymorphisms and P-glycoprotein expression in ovarian carcinomas'.
49	Nileena Nayak	XI Annual Conference of Kairali Society of Oral & Maxillofacial Pathologists	Sept 2014, Azeezia Medical College, Kollam	Faculty Talk: 'Fine needle aspiration cytology of cervical lymph nodes'.
50	Nileena Nayak	INTROPATH 2015 Pathology Pearls	Mar 2015, Govt. Medical College, Thrissur	Faculty Talk: 'Introduction to cytopathology: The basics'.
51	Pranab K. Prabhakaran	31st Conference of the Indian Cooperative Oncology Network (ICON)	12-14 Sept 2014, Bhopal	Poster: 'Disseminated Candida famata infection in pregnant lady with relapsed AML: Unusual etiology of neutropenic sepsis'.
52	Preethi Sara George	Research Methodology & Knowledge Enhancement in Scientific Writing	28-29 Apr 2014, RCC	Talk: 'Data processing and analysis'.
53	Preethi G. Nath	34 th Annual Convention of Indian Association for Cancer Research.	19-21 Feb 2015, Jaipur	Paper:'Cytogenetic studies in pediatric leukemia: a preliminary report from South India'.
54	Priyakumari T	PHOCON 2014	10-12 Oct 2014, Chennai	Faculty Talk: 'AML in children: RCC experience'.
55	Priya Mary Jacob	4 th National Haematology Quiz & CME	20 Jul 2014, RCC	Case presentation: 'A case of primary leptomeningeal diffuse large B cell lymphoma diagnosed by flow cytometry of CSF sample'.
56	Priya Mary Jacob	7th Annual TCS meeting and UICC Workshop	25- 27 Oct 2014, New Delhi	Poster:'Body cavity fluid flow cytometry of haematolymphoid neoplasms'.
57	Rachel Cherian Koshy	CME and 62 nd Annual National Conference of Indian Society of Anaesthesiologists	25-29 Dec 2014, Madurai	Paper:'A prospective double blind, randomised control trial to study the efficacy of single dose pre emptive gabapentin to reduce post operative pain and opioid demand following head and neck surgery'.
58	Rachel Cherian Koshy	Inspire: ISA City Branch Meeting	30 Apr 2014, Thiruvananthapuram	Talk: 'Management of unanticipated difficulty airway'.
59	Rachel Cherian Koshy	"Ascend Ananthapuri"- one day CME programme	21 Sept 2014, Thiruvananthapuram	Chaired session on "Practical approach to airway management"
60	Rachel Cherian Koshy	Annual Kerala State ISA conference	10-12 Oct 2014, Kochi	Moderator for panel discussion of safe emergence from GA
61	Rachel Cherian Koshy	Impact 2015: Oncoanaesthesia CME	25 Jan 2015, RCC	Organising chairperson; Talk: 'Anaesthesia for head and neck cancer surgery'.

62	Raghukumar P	35th Annual Conference of Association of	20-22 Nov 2014, Loni,	Rapporteur for posters
	0	Medical Physicists of India.	Maharashtra	
63	Raghu Ram K.	Training Program for faculty members of	13 Nov 2014,	Talk: 'Basics of radiotherapy
	Nair	Engineering Colleges in Kerala.	Thiruvananthapuram	technology'.
64	Raghu Ram K.	35th Annual Conference of Association of	20-22 Nov 2014, Loni,	Panelist for panel discussion
	Nair	Medical Physicists of India.	Maharashtra	1
65	Raghu Ram K.	National Conference of Indian Society of	13-14 Dec 2014,	Scientific committee chairman
	Nair	, Radiographers and Technologists	Thiruvananthapuram	Talk: 'Nuclear Medicine: an overview'.
66	Raghu Ram K.	State Annual Conf of Indian Radiological &	21-22 Mar 2015, RCC	Talk: 'Current concepts in radiation
	Nair	Imaging Association		protection in diagnostic radiology'.
67	Rajani RV	National Conference On Quality And	2- 3 Sept 2014,	Talk:
		Safety In Nursing Practices And Patient	The Salvation Army	1. 'Safe injection practices'.
		Care Delivery	Catherine Booth College	2. 'Significance of hand hygiene'.
		,	of Nursing, Nagercoil,	
			Tamil Nadu	
68	Rekha A. Nair	Annual conference of Kairali Society of	14 Sept 2014, Kollam	Faculty
		Oral and Maxillofacial Pathologists		Talk: 'Lymphomas: an overview'.
69	Rekha A. Nair	CME – think lymphoma	21 Sept 2014, Cochin	Faculty
		/ 1	Cancer Society	Talk: 'Diagnostic issues in lymphomas'.
70	Rekha A. Nair	Haematocon 2014: Annual Conference Of	9 Nov 2014, Hyderabad	Faculty
		Indian Society of Haematology and Blood		Talk: HTLV associated adult T cell
		Transfusion		leukemia lymphoma'.
71	Rekha A. Nair	Lymphoma Education And Awareness	25 Jan 2015,	Faculty/panel member
		Programme (LEAP)	Thiruvananthapuram	
72	Rema P	Silver Jubilee Conference of Nagarcoil	21-22 Nov 2014	Talk: 'Fertility preservation in
		Obstetrics and Gynaecology Society		gynaecological cancers'.
73	Rema P	CME on Screening for Gynecological	6-7 Dec 2014	Talk:'Approach to premalignant
		Malignancies		lesions of cervix'.
74	Rema P	37 th All Kerala Congress of Obstetrics and	27 Feb-1 Mar 2015,	Talk: 'Conservatism in cancer cervix'.
		Gynaecology	Thiruvananthapuram	
75	Remani P	International Conference on Biosciences:	11-12 Sep 2014,	Chaired session
		State-of-the-art Advancements.	Kumarakom	Paper 'Antitumour effect of
				deoxyelephantopin isolated
				from a medicinal plant
				Elephantopus scaber'.
76	Remani P	34 th Annual Convention of Indian	19-21 Feb 2015, Jaipur	Paper: 'Anti-metastatic effect
		Association for Cancer Research.		of deoxyelephantopin from
				Elephantopus scaber in A549 lung
				cancer cells in vitro'.
77	Renu S	APCON 2014 Annual Conference of	Dec 2014, AFMC, Pune	Paper : 'Accuracy of intraoperative
		IAPM		frozen section in the diagnosis of
				ovarian masses: experience from a
				tertiary oncology center'.
78	Rona Joseph	31st Conference of the Indian Cooperative	12-14 Sept 2014. Bhonal	Poster: 'Catecholamine refractory
		Oncology Network (ICON)		anaphylactic shock a close differential
				diagnosis for septic shock in a
				neutropenic patient'.
79	Saji S. Nair	I7th National Convention on Knowledge,	9-11 Dec 2014,	Paper: 'Library manpower in
, ,	5aji 5. i vali	Library and Information Networking	Puducherry	allopathic medical institutions in
		(NACLIN 2014)		Kerala: a critical appraisal'.
				iner aia, a critical appraisal.

80	Saritha V. N.	34 th Annual Convention of Indian	19-21 Feb 2015, Jaipur	Paper :'Liquid chromatography:
		Association for Cancer Research.		Mass spectrometry analysis of exfoliated cells from the squamous cell carcinoma (SCC) and cervical intraepithelial neoplasia: significance in defining candidate markers'.
81	Shaji Thomas	NATCON-Indian Association of Surgical Oncology National Conference	18-21 Sept 2014, Chennai	Talk: 'Management of neck in head and neck cancers'. Demonstrated surgical steps of parotidectomy in the live surgical workshop.
82	Shaji Thomas	ISCON 2015-India Singapore Conference on Head and Neck Cancer and Workshop	13-15 Feb 2015, RCC	Chairman Scientific committee
83	Sheeja Varghese	International Conference on Biosciences: State-of-the-art Advancements	11-12 Sep 2014, Kumarakom	Paper:'Antimetastatic effect of plant polysaccharide PSM001 against melanoma'.
84	Sheeja Varghese	27 th Kerala Science Congress	27-29 January 2015, Alappuzha	Paper: 'Antimetastatic effect of antitumor plant polysaccharide PSP001'.
86	Shruti Prem	4 th National Haematology Quiz Kerala State Chapter and CME	20 July 2014, RCC	Organizing secretary
87	Sinto M. S.	27 th Kerala Science Congress	27-29 Jan 2015, Alappuzha	Poster :'Over expression of EGF receptor promotes metastasis of oral cancer via FKB and STAT3 signalling pathways'.
88	Sivakumari P R	Geriatric Care	18 Feb 2015, KSIHAFVV, Thiruvananthapuram	Talk:'Lymphedema care'.
89	Sonia Abraham	68 th Annual Conference of Indian Radiological and Imaging Association	29 Jan-1Feb 2015, Kochi	Paper: 'Multiparametric MRI in improving diagnostic accuracy of breast lesions'. Poster: 'Accuracy of quantitative DWI in assessing post chemo - RT residual disease in Ca. rectum'.
90	Sreelekha R	16th National & 3rd International Oncology Nursing Conference	13 -15 Nov 2014, Tata Memorial Hospital, Mumbai	Talk: 'Nurse: a decision maker in oncology nursing'.
91	Sreelekha R	3rd National Conference of INS India	21-22 Nov 2014, AIMS, Kochi	Talk :'Complications of peripheral venous access line'.
92	Sreelekha R	A commitment to excellence Criticare Nursing 2015	6-7 Feb 2015, Govt. College of Nursing, Thiruvananthapuram	Talk: 'Quality indicators in critical care'.
93	Sreelekha R	National level conference of Medical surgical Nursing Society of India	7 Mar 2015 Kovai Medical Centre, Coimbatore	Talk: 'Nursing care of patient with chemotherapy'.
94	Sujathan K	Seminar on advances in Biotechnology	I5 th Nov 2014, Kerala Agricultural University, Thrissur	Talk: 'Recent developments in biotechnology and cancer research'.

95	Sujathan K	International Conference: Pharmacon VII.	19-20 Dec 2014,	Talk: 'Cervical cancer control in
			Ottappalam	Kerala'.
96	Sunilkumar S	CME on Radiology	26 Aug 2014, Aizwal,	Talk: 'Latest trends in radiotherapy
			Mizoram	technology'
98	Sunilkumar S	National Conference of Indian Society of	13-14 Dec 2014,	Organising secretary
~~		Radiographers & Technologists	Thiruvananthapuram	
99	Sunilkumar S	CME on Radiology	8 Mar 2015, MIMS,	Talk:' An introduction to radiology'.
100		3rd National Conference of INS India	Kozhikode	
100	Sunitha Kumari R	and National Conference of IINS India	21-22 Nov 2014, AIMS, Kochi	Poster: 'Ultrasonography guided peripherally inserted central venous catheters: a best practice'.
101	Sunitha Kumari R	National level conference of Medical	7 Mar 2015	Talk: 'Central venous access care'.
		surgical Nursing society of India	Kovai Medical Centre,	
		5 5 /	Coimbatore	
102	Sunithakumary	National Conference of Indian Society of	13-14 Dec 2014,	Paper:'Our experience with linac
	UP	Radiographers & Technologists	Thiruvananthapuram	based SRS & SRT'.
103	Sureshkumar R	27 th Kerala Science Congress	27-29 Jan 2015, Alappuzha	Paper:'Cytogenetic profiling: a prognostic tool in acute myeloid leukaemia (AML) patients'.
104	Veena VS	34 th Annual Convention of Indian	19-21 Feb 2015, Jaipur	Paper :'Implications of
		Association for Cancer Research.		immunocytochemistry in exfoliated
				cells from sputum samples for the
				diagnosis and predicting prognosis of
				non-small cell lung cancer'.
106	Venugopal A	ISACON KERALA 2014: 38th Annual state	10-12 Oct 2014, Kochi	Talk: 'Difficult airway guidelines'.
		conference of ISA Kerala state chapter		
107	Venugopal A	ISAMIDCON 2015: Midterm CME and	7-8 Mar 2015,	Chaired session on 'Anaesthesia at
		PG Quest organized by ISA Kerala State Chapter	Perinthalmanna	remote location'.
108	Viji S. Pillai	American Heart Association Certified Basic Life Support and Advanced Cardiac Life Support training in RCC in association with the Indian Institute of Emergency Medical Services	15-17 Aug 2014, RCC	Instructor, Organiser
109	Viji S. Pillai	Impact 2015: Oncoanaesthesia CME	25 Jan 2015, RCC	Chaired session on 'Truncal nerve blocks'.
110	Vikram	RARE – 2015	18-21 Feb 2015, Chennai	Poster:'Role of imaging in parathyroid disorders: experience from a tertiary centre'.
	Vishnu V	National Seminar On Technology Management In Libraries	29-30 Aug 2014, KAU, Thrissur	Chaired session on: 'Technology adoption in libraries'. Talk: 'Information technology adoption in RCC library'.
112	Vishnu V	UGC sponsored National Seminar on Managing Information Resources in Digital Environment	27-28 Feb 2015, Thrissur	Chaired session Talk: 'Institutional repositories and digital libraries in knowledge management'.

ONGOING RESEARCH PROJECTS

EXTRAMURAL

Principal Investigator	Project Title	Funded by	Status
	ANAESTHESIOLOGY		
nel Cherian Koshy	Monitoring of Anaesthetic Depth	Centre for Engineering Research and Development, Govt. of Kerala	Ongoing
	BREAST		
a Sarah Mathew	Adjuvant Tamoxifen in breast Cancer longer against shorter (ATLAS).	Oxford University	Ongoing
a Sarah Mathew	Risk factors for breast cancer in India: an INDOX case- control study.	Oxford University	Ongoing
adas K	Randomised controlled evaluation of clinical early detection in the control of breast cancer in low-and medium- resource settings.	IARC, Lyon, France	Ongoing
	articipants 146,602;Total Screened- 70,733; Breast cancers in	lentified: Intervention arm	- 195, Cont
- 150. 3rd round of	screening is ongoing.		
	CHEST & GASTRO-INTESTINAL	1	
ndramohan K	Resistance in colorectal cancer: Tumor stem like cells as unique targets in residual disease	DBT, Govt. of India	Ongoing
	GYNAEC & GENITO-URINARY	L	
a P	MTA mediated invasion of stem like cells: implications in endometrial cancer.	Dept. of Biotechn- ology, Govt. of India	Ongoing
etha S	Non invasive detection of cervical malignancies using diffuse reflectance imaging and fluorescence/ reflectance point monitoring techniques.	Dept. of Biotechnology, Govt. of India	Completed
	HEAD & NECK		
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	Ongoing
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
adas K	Randomized controlled trial of oral cancer screening by mouth examination in Kerala, India.	IARC, Lyon, France	Completed
ted in 1995; Recrui	ted 191,931 patients; Documented 34% reduction in mortality	among habituates.	
adas K	Understanding barriers related to screening diagnosis and treatment ongoing of oral cancer in India	RTI International, USA	Completed
ted in 2014 and re			
adas K	Estimation of tobacco attributable mortality in Kerala.	IARC, Lyon, France	Ongoing
adas 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
adas adas	K K	K Role of human papillomavirus infection and other	K Estimation of tobacco attributable mortality in Kerala. IARC, Lyon, France 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

14	Ramachandran K	Development of CAD system for mammograms	Department of	Ongoing
			Electronics &	
		DATIOLOCY	Information Technology	
		PATHOLOGY		
15	Anitha Mathews	Classification of breast carcinoma based on	Kerala State	Complete
		immunohistochemical profile and its correlation with	Council For Science,	
		histomorphological features and clinical outcome.	Technology &	
			Environment.	
		PAEDIATRIC ONCOLOGY		
16	Kusumakumary P	Multiplex profiling of chromosomal translocations,	Kerala State Council	Ongoing
		mutations and MDR in leukemia cells and development of	For Science,	
		biomarkers for targeted personalized medicine.	Technology &	
			Environment.	
		one marrow samples were collected from pediatric OP of Regional		
		A was isolated and cDNA synthesized from the samples. Samples		
	gene Abl in both pretre	atment and first follow up samples were analyzed for mutations ar	nd translocations by multi	blex nested F
	All the samples analyz	ed were of ALL subtype. It was found that MLL/AF4 translocation	and FLT3ITD mutation w	vere significa
		cases. Resistant cell lines K562 (CML), HL-60 (AML) and Jurk		-
		ay with various chemotherapeutics drugs alone and in combinat		
			S Follower and	
	PSP001 along with the	e drugs could reduce resistance to a small extend		
	PSP001 along with the	e drugs could reduce resistance to a small extend.		
17		CANCER EPIDEMIOLOGY	ICMR. Govt. of India	Ongoing
17	Aleyamma Mathew	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram.	ICMR, Govt. of India	Ongoing
7	Aleyamma Mathew The average annual ci	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram dis	trict is 162 in males and	155 in femo
17	Aleyamma Mathew The average annual ci Lung (CR: 21), Oral ca	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram dis vity (CR 16.4) and prostate (CR: 11) are the first three leading co	trict is 162 in males and ancer sites among males.	155 in femo Breast (CR:
	Aleyamma Mathew The average annual ci Lung (CR: 21), Oral ca Thyroid (CR: 15) and (CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram dis vity (CR 16.4) and prostate (CR: 11) are the first three leading co Cervix uteri (CR: 8.5), are the corresponding cancer sites among	trict is 162 in males and incer sites among males. females (CR:crude rate pe	155 in femo Breast (CR: - er 105 fema
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18	Aleyamma Mathew The average annual cr Lung (CR: 21), Oral ca Thyroid (CR: 15) and C Aleyamma Mathew Completed this 3-year and kidney cancer we Paul Sebastian Computerized data wi cancer cases reported Paul Sebastian HBCR 2012 provided	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram disvity (CR 16.4) and prostate (CR: 11) are the first three leading concervix uteri (CR: 8.5), are the corresponding cancer sites among in Risk factors of bladder and kidney cancers: a case-control study Risk factors of bladder and kidney cancers: a case-control study study and submitted the report. One paper on Tobacco and bladder esubmitted for publication. Pattern of care and survival studies in cancers of cervix, female breast and head and neck. th updated follow-up details on a total of 7447 female breast, 21 at RCC are available since the period 2006. Hospital-based cancer registry the magnitude, patterns of cancer, stage at diagnosis and treatment	trict is 162 in males and ancer sites among males. females (CR:crude rate po Council for Science, Technology & Environment, Govt. of Kerala der cancer and another po ICMR, Govt. of India 72 cervix uteri and 1183 Indian Council of Medical Research	155 in fema Breast (CR: - er 105 fema Complete aper on Obe Ongoing 35 head & n
18	Aleyamma Mathew The average annual cr Lung (CR: 21), Oral ca Thyroid (CR: 15) and C Aleyamma Mathew Completed this 3-year and kidney cancer we Paul Sebastian Computerized data wi cancer cases reported Paul Sebastian HBCR 2012 provided	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram dis vity (CR 16.4) and prostate (CR: 11) are the first three leading ca Cervix uteri (CR: 8.5), are the corresponding cancer sites among i Risk factors of bladder and kidney cancers: a case-control study study and submitted the report. One paper on Tobacco and bladder re submitted for publication. Pattern of care and survival studies in cancers of cervix, female breast and head and neck. th updated follow-up details on a total of 7447 female breast, 21 at RCC are available since the period 2006. Hospital-based cancer registry	trict is 162 in males and ancer sites among males. females (CR:crude rate po Council for Science, Technology & Environment, Govt. of Kerala der cancer and another po ICMR, Govt. of India 72 cervix uteri and 1183 Indian Council of Medical Research	155 in fema Breast (CR: - er 105 fema Complete aper on Obe Ongoing 35 head & n
18	Aleyamma Mathew The average annual cr Lung (CR: 21), Oral ca Thyroid (CR: 15) and C Aleyamma Mathew Completed this 3-year and kidney cancer we Paul Sebastian Computerized data wi cancer cases reported Paul Sebastian HBCR 2012 provided	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram disvity (CR 16.4) and prostate (CR: 11) are the first three leading concervix uteri (CR: 8.5), are the corresponding cancer sites among in Risk factors of bladder and kidney cancers: a case-control study Risk factors of bladder and kidney cancers: a case-control study study and submitted the report. One paper on Tobacco and bladder esubmitted for publication. Pattern of care and survival studies in cancers of cervix, female breast and head and neck. th updated follow-up details on a total of 7447 female breast, 21 at RCC are available since the period 2006. Hospital-based cancer registry the magnitude, patterns of cancer, stage at diagnosis and treatment	trict is 162 in males and ancer sites among males. females (CR:crude rate po Council for Science, Technology & Environment, Govt. of Kerala der cancer and another po ICMR, Govt. of India 72 cervix uteri and 1183 Indian Council of Medical Research	155 in fema Breast (CR: - er 105 fema Complete aper on Obe Ongoing 35 head & n
18	Aleyamma Mathew The average annual cr Lung (CR: 21), Oral ca Thyroid (CR: 15) and C Aleyamma Mathew Completed this 3-year and kidney cancer we Paul Sebastian Computerized data wi cancer cases reported Paul Sebastian HBCR 2012 provided	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram disvity (CR 16.4) and prostate (CR: 11) are the first three leading concersites and prostate (CR: 11) are the first three leading concersites are control for the corresponding cancer sites among in the corresponding cancer sites are control in the study and submitted the report. One paper on Tobacco and blade is the submitted for publication. Pattern of care and survival studies in cancers of cervix, female breast and head and neck. th updated follow-up details on a total of 7447 female breast, 21 at RCC are available since the period 2006. Hospital-based cancer registry the magnitude, patterns of cancer, stage at diagnosis and treatments is continuing. CANCER RESEARCH	trict is 162 in males and ancer sites among males. females (CR:crude rate po Council for Science, Technology & Environment, Govt. of Kerala der cancer and another po ICMR, Govt. of India 72 cervix uteri and 1183 Indian Council of Medical Research tent modalities of 13359	155 in fema Breast (CR: - er 105 fema Complete aper on Obe Ongoing 85 head & n Ongoing patients (65
18	Aleyamma Mathew The average annual ci Lung (CR: 21), Oral ca Thyroid (CR: 15) and C Aleyamma Mathew Completed this 3-year and kidney cancer we Paul Sebastian Computerized data wi cancer cases reported Paul Sebastian HBCR 2012 provided males and 6780 femore	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram disvity (CR 16.4) and prostate (CR: 11) are the first three leading concervix uteri (CR: 8.5), are the corresponding cancer sites among pervix uteri (CR: 8.5), are the corresponding cancer sites among pervix uteri (CR: 8.5), are the corresponding cancer sites among pervix uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri uteri uteri uteri (CR: 8.5), are the corresponding cancer site among pervise uteri	Trict is 162 in males and ancer sites among males. females (CR:crude rate por Council for Science, Technology & Environment, Govt. of Kerala fer cancer and another por ICMR, Govt. of India 72 cervix uteri and 1183 Indian Council of Medical Research ment modalities of 13359 Kerala State	155 in fema Breast (CR: - er 105 fema Complete aper on Obe Ongoing 35 head & n
18	Aleyamma Mathew The average annual ci Lung (CR: 21), Oral ca Thyroid (CR: 15) and C Aleyamma Mathew Completed this 3-year and kidney cancer we Paul Sebastian Computerized data wi cancer cases reported Paul Sebastian HBCR 2012 provided males and 6780 femore	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram disvity (CR 16.4) and prostate (CR: 11) are the first three leading concersites and prostate (CR: 11) are the first three leading concersites are control for the corresponding cancer sites among in the corresponding cancer sites are control in the study and submitted the report. One paper on Tobacco and blade is the submitted for publication. Pattern of care and survival studies in cancers of cervix, female breast and head and neck. th updated follow-up details on a total of 7447 female breast, 21 at RCC are available since the period 2006. Hospital-based cancer registry the magnitude, patterns of cancer, stage at diagnosis and treatments is continuing. CANCER RESEARCH	trict is 162 in males and ancer sites among males. females (CR:crude rate po Council for Science, Technology & Environment, Govt. of Kerala der cancer and another po ICMR, Govt. of India 72 cervix uteri and 1183 Indian Council of Medical Research ment modalities of 13359 Kerala State Council for Science,	155 in fema Breast (CR: - er 105 fema Complete aper on Obe Ongoing 85 head & n Ongoing patients (65
18	Aleyamma Mathew The average annual ci Lung (CR: 21), Oral ca Thyroid (CR: 15) and C Aleyamma Mathew Completed this 3-year and kidney cancer we Paul Sebastian Computerized data wi cancer cases reported Paul Sebastian HBCR 2012 provided males and 6780 femore	CANCER EPIDEMIOLOGY Population Based Cancer Registry, Thiruvananthapuram. rude cancer incidence rates (per 105) in Thiruvananthapuram disvity (CR 16.4) and prostate (CR: 11) are the first three leading concervix uteri (CR: 8.5), are the corresponding cancer sites among pervix uteri (CR: 8.5), are the corresponding cancer sites among pervix uteri (CR: 8.5), are the corresponding cancer sites among pervix uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri (CR: 8.5), are the corresponding cancer sites among pervise uteri uteri uteri uteri uteri (CR: 8.5), are the corresponding cancer site among pervise uteri	Trict is 162 in males and ancer sites among males. females (CR:crude rate por Council for Science, Technology & Environment, Govt. of Kerala fer cancer and another por ICMR, Govt. of India 72 cervix uteri and 1183 Indian Council of Medical Research ment modalities of 13359 Kerala State	155 in fema Breast (CR: - er 105 fema Complete aper on Obe Ongoing 85 head & n Ongoing patients (65

		MicroRNA expression pattern in carcinoma of the uterine	DAE-DRINS	Ongoing
		cervix in relation to HPV infection status.		
		I five cervical cancer cell lines were started - HPV genotyping of t		
		t generation sequencing, on these lines are progressing. Parallely, tiss	ue samples from cervical	cancer patie
		for microRNA profiling.		
23	Remani P	Chemical investigation and antitumour studies of Annona	ICMR, Govt. of India	Complete
		squamosa L.		
	In this study our ai	m was to purify anticancer principles from Annona squamosa seeds	and to evaluate its antit	umour prope
	apoptotis inducing o	capacity and to delineate different molecular mechanism of apoptosis	on different tumour cells.V	Ne have isolo
	a novel compound	from the seeds of Annona squamosa and characterized as 4-(7-	(5 isobutyltetrahydrofura	n-2-yl) -2-me
	xyheptyl) dihydrofu	ran-2(3H)-one, (IMD). IMD showed significant cytotoxicity, antitumo	ur activity and apoptosis	inducing act
		r cell lines such as A549, K562, MCF-7, HCT 116 and KB. Molecula		
	death in tumour ce			
24	Sujathan K	Proteome analysis of squamous cell carcinoma and its	Kerala State	Ongoing
	,	precursor lesions of cervix.	Council For Science,	
			Technology &	
			Environment	
	We have standardi	zed a technique to separate the epithelial cells from non-cellular co	mbonents using density o	aradient solu
	and have evolved a	protocol for reproducibly extract protein from cervical cells which is a	often mixed with viscous r	nucus and o
		Ilular components. Protein profile of normal squamous cells, squamo	_	
		s been evaluated by Liquid Chromatography- mass spectrometry.We		
		mous epithelial cells, squamous cells with different grades of dysplas		
	to be further verified	ed in epithelial cells separated from cervical scrape smears without	the presence of macroph	hages and o
	non-epithelial cells.			
25	Sujathan K			
25		Evaluation of spice extracts for anticancer effect in	Spices Board	Ongoing
25		Evaluation of spice extracts for anticancer effect in relation to telomerase activity.	Spices Board	Ongoing
25	It is a collaborative	relation to telomerase activity.		
25		relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification	on of telomerase inhibitor	rs in major s
	phytochemicals by	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics	on of telomerase inhibitor telomerase activity and o	s in major s
	phytochemicals by events in different t	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics tumour cell lines treated with these phytochemicals is being evaluated	on of telomerase inhibitor telomerase activity and o	s in major s other cytopa
	phytochemicals by	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics tumour cell lines treated with these phytochemicals is being evaluated Isolation and characterization of primary tumor cells for	on of telomerase inhibitor telomerase activity and o ed. Amrita School of	rs in major s
	phytochemicals by events in different t	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics tumour cell lines treated with these phytochemicals is being evaluate Isolation and characterization of primary tumor cells for screening of anacardic acid derivatives on the regulation	on of telomerase inhibitor telomerase activity and o	s in major s other cytopa
	phytochemicals by events in different to Lakshmi S	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics tumour cell lines treated with these phytochemicals is being evaluated Isolation and characterization of primary tumor cells for screening of anacardic acid derivatives on the regulation of MMP and EGF pathways.	on of telomerase inhibitor telomerase activity and o ed. Amrita School of Biotechnology	s in major s other cytopa Ongoing
25	phytochemicals by events in different to Lakshmi S Primary cell culture	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics tumour cell lines treated with these phytochemicals is being evaluated Isolation and characterization of primary tumor cells for screening of anacardic acid derivatives on the regulation of MMP and EGF pathways. is being carried out for development of cell line from breast tumour	on of telomerase inhibitor telomerase activity and o ed. Amrita School of Biotechnology	s in major s other cytopa Ongoing
26	phytochemicals by events in different in Lakshmi S Primary cell culture in breast cancer ce	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics tumour cell lines treated with these phytochemicals is being evaluate Isolation and characterization of primary tumor cells for screening of anacardic acid derivatives on the regulation of MMP and EGF pathways. is being carried out for development of cell line from breast tumour Il lines for cytotoxicity and apoptosis.	on of telomerase inhibitor telomerase activity and o ed. Amrita School of Biotechnology s. Effect of anachardic aci	other cytopa Ongoing d was evalue
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26	phytochemicals by events in different if Lakshmi S Primary cell culture in breast cancer cell Lakshmi S The frequencies of ovarian cancer pating not much different	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics tumour cell lines treated with these phytochemicals is being evaluate Isolation and characterization of primary tumor cells for screening of anacardic acid derivatives on the regulation of MMP and EGF pathways. is being carried out for development of cell line from breast tumours Illines for cytotoxicity and apoptosis. Implications of mdr1 gene polymorphisms and p-glycoprotein expression in ovarian cancer in relation to treatment response the three more commonly studied MDR1 SNPs was analyzed in a fents. In the case of C3435T and G2677T polymorphism, the genoty compared to the controls. But for C1236T polymorphism, the mutant	n of telomerase inhibitor telomerase activity and o ed. Amrita School of Biotechnology s. Effect of anachardic aci Board of Studies in Nuclear Sciences (BRNS)- Dept of Atomic Energy sample of healthy perso pe and allele frequencies t homozygous TT genotyp	ons and primin patients we predomino
26	phytochemicals by events in different in Lakshmi S Primary cell culture in breast cancer cell Lakshmi S The frequencies of ovarian cancer pati not much different in the patient grou	relation to telomerase activity. project of Indian Institute of Spices Research and RCC. Identification in Silico method and evaluation of the cytotoxicity, growth kinetics tumour cell lines treated with these phytochemicals is being evaluate Isolation and characterization of primary tumor cells for screening of anacardic acid derivatives on the regulation of MMP and EGF pathways. is being carried out for development of cell line from breast tumours Il lines for cytotoxicity and apoptosis. Implications of mdr1 gene polymorphisms and p-glycoprotein expression in ovarian cancer in relation to treatment response The three more commonly studied MDR1 SNPs was analyzed in a inters. In the case of C3435T and G2677T polymorphism, the genoty	n of telomerase inhibitor telomerase activity and o ed. Amrita School of Biotechnology s. Effect of anachardic aci Board of Studies in Nuclear Sciences (BRNS)- Dept of Atomic Energy sample of healthy perso pe and allele frequencies t homozygous TT genotyp d cell proliferation in ovar	s in major s other cytopo Ongoing d was evalue Ongoing nns and prin in patients v e predomine rian cancer

28	Hariharan S	Molecular genetic basis of resistance to imatinib treatment in CML	Council for Science, Technology &	Ongoing
			Environment	
	Targeting the tyrosine	e kinases activity of BCRABL represents a very promising therape	utic strategy in CML. Des	pite the sti
	efficacy of the tyrosin	e kinase inhibitor STI571, resistance has been observed in a signif	îcant proportion of patie	nts in advar
	CML stage. We invest	igated in this study the mechanism of resistance to STI571 throug	gh point mutations in the	tyrosine kir
	domain and /or BCRA	BL gene amplification. This screening may allow intervention before i	relapse by identifying eme	rging mutat
	with defined impacts	on IM binding. Certain mutations may respond to higher doses of IM	, whereas other mutation	s may man
	switching to another t	therapeutic strategy.We had screened 300 CML patients undergoin	ng IM therapy and identif	îed 66 pati
	with resistance.			
29	SreelekhaTT	Preparation and characterization of nanoparticles from	Kerala State Council	Ongoing
		antitumor polysaccharide PST001 and elucidation of its	for Science, Technology	
		pharmacokinetics.	& Environment	
	Two different nanopa	rticles PST-Gold and PST-Dox were prepared and assessed for its a	dvanced anticancer poten	tial in 6 hui
		er cell lines.The mechanism of cytotoxicity was evaluated using An		
		ptosis was confirmed. Molecular mechanism of action of the PST-Do	-	
		cell lines and lymphocytes by whole genome microarray expression		
		solid tumor exposed the application of PST-Dox nanoparticles as a		-
		an with reduced tumor volume was observed with both ascetic and		
	-	s showed tumor specific accumulation and are retained in the tum		
		COMMUNITY ONCOLOGY		
30	Ramani S.Wesley	Evaluation of early detection of cervical cancer precursors by	IARC, Lyon, France &	Ongoing
50		visual inspection with Lugol's iodine (VILI), visual inspection	Bill Gates Foundation	01.801.8
		with acetic acid (VIA) and magnified VIA (VIAM) in Kerala, India.	Din Gates i Gandation	
31	Ramani S.Wesley	Cervical cancer screening using VIA, VILI for women in the	IARC I von France	Ongoing
51	Tarriari 5. VVCSiCy	control area of Trivandrum breast cancer screening project.		Ongoing
	As part of the comm	unity based cluster randomized controlled trial in connection with	the Trivandrum Breast Co	incer Scree
		er screening using VIA, VILI is being conducted in the control group of		incer seree
32	Gigi Thomas	Search for predictive genetic markers of high-risk malignant	-	Ongoing
JZ	Cigi momas	transformation potential in oral leukoplakia patients.	for Science, Technology	Ongoing
			and Environment,	
			Govt. of Kerala	
33	Gigi Thomas	Estimation of tobacco attributable mortality in Kerala	IARC, Lyon, France	Ongoing
34	Gigi Thomas	A multi-centre phase II randomised double-blind placebo	Dept. Biotechnology,	Origoling
ЪТ	Gigi Momas	efficacy and safety of Curcumin in oral premalignant lesions	Govt. of India	Ongoing
		÷		
35	Davil Cohastian	NATURAL BACKGROUND RADIATION CANCER REGIS	1	
20	Paul Sebastian	India- Japan Co-operative Research Programmes on	Health Research	Ongoir
	The second second	Health effects of natural radiation in Karunagappally, Kerala	Foundation, Japan	
		ing with the aim of estimating the health effects of natural radia		
	(HBRA) Karunagabbal	lly, Kerala. Studies concentrating mainly on cancer, Non-cancerous dis	eases, dose measurement	s and biolo
	, , ,			
24	parameters covering t			
36	, , ,	Natural Background Radiation Registry (NBRR): Individual	Health Research	Ongoing
36	parameters covering the Raghu Ram K. Nair		Foundation, Japan	Ongoing

37	Jayalekshmi P	Radiation Epidemiologic studies, Karunagappally, Kerala,	Health Research	Ongoing
		India.	Foundation, Japan	
	Follow up of the resid	lents of HBRA. Migration, Mortality and Cancer Incidence survey u	undertaken covering four	lakhs populati
	periodically.			
38	Paul Sebastian	Prevalence of cataract in HBRA, Karunagappally	Health Research	Ongoing
			Foundation, Japan	
	The project aims to e	valuate the prevalence of cataract and lens opacity among the re	esidents of high and low b	oackground ar
	900 females have un	dergone eye examinations using slit lamp by ophthalmologist and	analysis is ongoing.	
39	Paul Sebastian	Prevalence of Atherosclerosis in HBRA, Karunagappally	Health Research	Ongoing
			Foundation, Japan	
	Studies concentrating	on the measurements of cardio vascular index (1000 Nos.), Bioch	nemical investigations (20	0 Nos.) and li
	(400 Nos.) of carotid	arteries in the residents of radiation area for assessing the preval	lence of atherosclerosis.	
40	Hariharan S	Cytogenetic studies on the effects of chronic low level	Health Research	Ongoing
		radiation in the residents of high background radiation area	s Foundation, Japan	
		radiation in the residents of high background radiation area (HBRA) in Kerala, India.	s Foundation, Japan	
	Unstable chromosom	0 0		he abnormali
		(HBRA) in Kerala, India.	f Karunagappally taluk.Ti	
	were compared with	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of	f Karunagappally taluk.Ti	
41	were compared with	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in t	f Karunagappally taluk.Ti	
41	were compared with cumulative dose and	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in t chromosomal abnormalities.	f Karunagappally taluk. Ti he HBRA. There is an asso	ociation betwe
41	were compared with cumulative dose and	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in the chromosomal abnormalities. Search for a molecular signature of thyroid tumours	f Karunagappally taluk. The HBRA. There is an asso	ociation betwe
41	were compared with cumulative dose and Hariharan S	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in the chromosomal abnormalities. Search for a molecular signature of thyroid tumours occurring in people living in high background radiation	f Karunagappally taluk. The HBRA. There is an asso Health Research Foundation, Japan	Ongoing
41	were compared with cumulative dose and Hariharan S The main objective or	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in the chromosomal abnormalities. Search for a molecular signature of thyroid tumours occurring in people living in high background radiation area (HBRA), Karunagappally, Kerala, India.	f Karunagappally taluk. The HBRA. There is an asso Health Research Foundation, Japan patients inhabiting in Hi	Ongoing BRA and norr
41	were compared with cumulative dose and Hariharan S The main objective o areas. For this we had	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in the chromosomal abnormalities. Search for a molecular signature of thyroid tumours occurring in people living in high background radiation area (HBRA), Karunagappally, Kerala, India. f the study is to compare the molecular signatures of ca thyroid	f Karunagappally taluk. The HBRA. There is an asso Health Research Foundation, Japan patients inhabiting in Hi from normal areas. RNA	Ongoing BRA and norr
41	were compared with cumulative dose and Hariharan S The main objective o areas. For this we had	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in the chromosomal abnormalities. Search for a molecular signature of thyroid tumours occurring in people living in high background radiation area (HBRA), Karunagappally, Kerala, India. f the study is to compare the molecular signatures of ca thyroid to collected 5 tumour tissues from the patients of HBRA and five	f Karunagappally taluk. The HBRA. There is an asso Health Research Foundation, Japan patients inhabiting in Hi from normal areas. RNA	Ongoing BRA and norr
41	were compared with cumulative dose and Hariharan S The main objective o areas. For this we had	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in the chromosomal abnormalities. Search for a molecular signature of thyroid tumours occurring in people living in high background radiation area (HBRA), Karunagappally, Kerala, India. f the study is to compare the molecular signatures of ca thyroid to collected 5 tumour tissues from the patients of HBRA and five arried out, raw data was generated and the analysis could be done	f Karunagappally taluk. The HBRA. There is an asso Health Research Foundation, Japan patients inhabiting in Hi from normal areas. RNA	Ongoing Ongoing BRA and norr was isolated c
	were compared with cumulative dose and Hariharan S The main objective o areas. For this we had microarray analysis co	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in the chromosomal abnormalities. Search for a molecular signature of thyroid tumours occurring in people living in high background radiation area (HBRA), Karunagappally, Kerala, India. f the study is to compare the molecular signatures of ca thyroid to collected 5 tumour tissues from the patients of HBRA and five arried out, raw data was generated and the analysis could be done RADIATION PHYSICS	f Karunagappally taluk. The HBRA. There is an asso Health Research Foundation, Japan patients inhabiting in Hi from normal areas. RNA	Ongoing BRA and norm
	were compared with cumulative dose and Hariharan S The main objective o areas. For this we had microarray analysis co	(HBRA) in Kerala, India. e abnormalities were analyzed in subjects living in HBR areas of that of normal areas. An increase in abnormalities was noted in the chromosomal abnormalities. Search for a molecular signature of thyroid tumours occurring in people living in high background radiation area (HBRA), Karunagappally, Kerala, India. f the study is to compare the molecular signatures of ca thyroid to collected 5 tumour tissues from the patients of HBRA and five arried out, raw data was generated and the analysis could be done RADIATION PHYSICS Design and Development of Beam Direction Device	f Karunagappally taluk. The HBRA. There is an asso Health Research Foundation, Japan patients inhabiting in Hi from normal areas. RNA c. Kerala State	Ongoing Ongoing BRA and norr was isolated c

PHARMA/INDUSTRY SPONSORED

SI. 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.		Follow up phase
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.		Follow-up phase

		CHEST & GASTRO-INTESTINAL		
3	Sajeed A	BEVZ92-A-01-13: Open label randomized bioequivalence study to evaluate the phar- macokinetic (PK) and safety profile of Beva- cizumabBiosimilar (BEVZ92) in combination with FOLFOX or FOLFIRI versus Bevacizumab (AVASTIN*) in combination with FOLFOX or FOLFIR1 as first-line treatment in patients		Ongoing
		with metastatic ColoRectal Cancer (mCRC).		
4	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
5	Sivanandan CD	Multicentre, randomized, double-blind, phase 3 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 3B/4 or recurrent non-small cell lung cancer after failure of first line chemotherapy.	Boehringer Ingelheim	Completed. Results awaited
6	Sivanandan CD	Phase II study of Cancer patients failing prior therapies (GIST, NSCLC, Colon & pancreatic cancer	NATCO pharma Limited	Ongoing
		GYNAEC & GENITO-URINARY		
7	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.		Ongoing 3 patients recruited.
8	Jayaprakash P.G.	Multicentre, randomized, open label, active-con- trolled, 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.		Ongoing
9	Jayaprakash P.G.	An open-label, multicentre study to assess the safety of RO5185426 in patients with metastatic melanoma.	Roche	Ongoing
10	Suchetha S	An observational study to determine thromboembolism prophylaxis in oncology patients who are undergoing abdominal or pelvic surgery.	Aventis Pharma	Completed.

	Geetha N	HAEMATOLOGICAL, LYMPHORETICULAR, BON An open-label, randomized, multicentre phase 3	1	Folloup phase
1	Geetina i v	trial of dasatinib versus standard dose imatinib		
		(400 mg) in the treatment of subjects with newly		
		diagnosed chronic phase philadelphia chromosome		
		positive chronic myeloid leukemia.		
12	Geetha N	A phase II study of dasatinib therapy in children	Bristol Myers Squibb	Ongoing
IZ	Geelina IN	and adolescents with newly diagnosed chronic		Oligoling
		phase chronic myelogenous leukemia or with		
		Ph+ leukemias resistant or intolerant to imatinib.		
13	Sreejith G. Nair	A randomized, controlled, double-blind	Novartis	Ongoing
12	Sreejith G. Nair		INOVALUS	Ongoing
		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		
1.4	Deiziele Kussen D	HEAD & NECK	Clause Createbolies	Canadatad
14	Rejnish Kumar R	A randomised, double-blind, placebo-controlled,	Glaxo Smithkline	Completed
		multicentre, phase 2 study of oral lapatinib in		
		combination with concurrent radiotherapy and		
		cisplatin versus radiotherapy and cisplatin alone,		
		in subjects with stage III and IVA, B squamous cell		
		carcinoma of the head and neck.		
15	Rejnish Kumar R	A phase II, multicenter, randomized, double blind,	Novartis	Ongoing
		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.		
	One patient was rando	· · ·		
16	Rejnish Kumar R	A phase III, open label, randomised, multi-centre	Cell Science	Ongoing
		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.		

OTHER FUNDED PROJECTS

	Kalavathy MC	Women Cancer Control Programme:	Hindustan Life care LTD	Ongoing
		Karakulam Panchayat	(HLL)	
	HLL social commitmer	nt programmes, a unique women cancer control pro	gramme in the Karakulam Par	nchayat, Trivanadrum, trained
		cial workers of HLL and they visited each household	-	ancer and mobilised women
	for cancer screening. S	creened 815 women and detected 2 breast, I cerv		
2	Kalavathy MC	Cancer Control Programme in Parassala Block	Parassala Block Panchayat	Ongoing
		Panchayat		
		arried out by conducting cancer detection campaigns		
		HNs, JHIs and ASHA workers. Screened 1093 women, c		
3	Kalavathy MC	Cancer Control Programme in Vembayam	Vembayam Grama	Ongoing
		Grama Panchayat	Panchayat	
4		es were conducted in different areas of the Pancha	1	
4	Kalavathy MC	Cervical Cancer Control Programme in	Pathanapuram Grama	Ongoing
	2	Pathanapuram Grama Panchayat	Panchayat	
		mpaigns were conducted in Pathanapuram PHC a		nayat utilizing the service of
Г		rvice staff, detected I cervical, I parotid gland, I bre		Orrestan
5	Kalavathy MC	Hospital Based Cervical Cancer Screening	Govt. Women &	Ongoing
		Programmes.	Children Hospital and Peroorkada Govt. Hospital,	
	Those brogrammes are of	ngoing since 2008. Regular Papsmear clinics twice a week i	Thiruvananthapuram	nth in Poroorkada Covt Hospital
		COMMUNITY ONCOLO		iur in reioorkada Govi. riospitai.
6	Jayakrishnan R	School based programmes against tobacco		Ongoing
0	Jayaki isinan ik	and alcohol consumption in high school/higher	-	
		secondary schools of rural Kerala.		
7	Sreekumar C	Prevention and control of cancer among the	Kerala State Development	Ongoing
		tribal population of Kerala state.	Corporation for SC & ST	
8	Sreekumar C	Cancer control programmes in Palakkad district.		Ongoing
			Corporation for SC & ST	
		NATURAL BACKGROUND RADIATION	CANCER REGISTRY	
9	Jayalekshmi P	Prevention & cancer control among scheduled	Jilla Panchayat, Kollam	Ongoing
		caste people		
	513 people screened f	for cancer and detected 54 Pre-cancerous conditions	s of oral cavity and 6 cervical dy	splasias.The people became
	aware about the warn	ing signals of cancer and the ill effects of tobacco.	1	
10	Jayalekshmi P	Cancer detection and cancer patients service	Grama Block Panchayats	Ongoing
	- ,	projects	KarunagappIly Taluk	
		upported by welfare programmes undertaken as part		
		hayats benefitted in motivating the people for pa	rticipating in cancer control a	ctivities.2785 subjects were
	screened for cancer de			
	Paul Sebastian	District Cancer Registry	ICMR, Govt. of India	Ongoing
		y covers the entire population of Kollam District. Regi	, ,	nd pattern of Kollam District.
	3106 incident cancer	cases & 1506 mortality cases registered during 20		
		PALLIATIVE MEDICIN		
12	Cherian M. Koshy	Indian Palliative Care Initiative	Jiv Daya Foundation	Ongoing
		borative work wherein funding for a nurse, doctor, an	d data entry operator is provide	d by the Jiv Daya Foundation.
	The objective is to imp	prove quality of services.		

IN-HOUSE PROJECTS

SI. No.	Principal Investigator	Project title	Status	
		ANAESTHESIOLOGY		
	Rachel Cherian Koshy	Pregabalin as a premedicant in Head and Neck Oncosurgical cases	Completed	
2	Mary Thomas	Validation of Charlson's co-morbidity index in predictial co-morbidility adjusted life expectancy in oral cancer.	Ongoing	
}	Mary Thomas	Validation of height to thyromental distance to predict difficult intubation and compare with other predictors of difficult intubation.	Ongoing	
ŀ	Venugopal A			
-)	Venugopal A	A comparative study of lignocaine and ondensetron as pretreatment to prevent pain on injection of propofol.	Ongoing	
6	Viji S.Pillai	Anatomical variation of internal jugular vein in relation to common carotid artery in neck: ultrasound based study	Ongoing	
7	Sudha P	Analysis of the effects of drugs and techniques used in anaesthesia on tumour recurrence, metastasis and survival in ovarian serous adenocarcinoma.	Ongoing	
}	Subha R	Perioperative transfusion of blood and blood products in patients undergoing cancer surgery: a prospective analysis.	Ongoing	
	Deepthy J. Prabhu	Retrospective Audit of the outcome with the use of colloids in patients undergoing major onco-surgery	Ongoing	
		BREAST & CENTRAL NERVOUS SYSTEM	1	
0	Arun Peter Mathew	A randomized controlled trial comparing ultrasonic dissection with electrocautery for axillary dissection.	Ongoing	
I	Beela Sarah Mathew	Impact of subventricular zone (SVZ) irradiation on outcome of patients with glioblastoma multiforme.	Ongoing	
2	Beela Sarah Mathew	Comparison of 3DCRT, tangent – beam IMRT and VMAT (Rapidarc) for whole breast radiotherapy following breast conservation: a dosimetric study.	Ongoing	
3	Beela Sarah Mathew	Preliminary results of Linac based stereotactic radiosurgery in arteriovenous malformations at Regional Cancer Centre, Trivandrum.	Ongoing	
4	Paul Augustine	Validation of sentinel lymph node biopsy technique after prior lumpectomy in early breast cancer patients.	Completed	
5	Paul Augustine	The predictive factors for nipple involvement in carcinoma breast.	Completed	
		CHEST & GASTRO-INTESTINAL		
6	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.	Ongoing	
7	Sivanandan CD	Role of high dose conformal radiotherapy in unresectable hepatocellular carcinoma.	Completed	
	Six patients with a median age of 58.5 years were included in the study, with a total of 9 lesions. At 6weeks post radiotherapy, 7 lesions			
	were stable and I lesion each had complete and partial response. At a median follow up of 40 weeks (range 26-87weeks), there we 2 outfield intrahepatic disease progressions and one systemic progression			
18	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	

19	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 career centre (RCC). This is performed as prospective observational study.			
20	Sajeed	Treatment outcome of limited stage small cell lung carcinoma patients treated with	Ongoing	
		radical chemoradiotherapy: prospective observational study.		
21	Iqbal Ahamed M	Quality of life after gastrectomy for gastric carcinoma.	Ongoing	
22	Madhu Muralee	Prevalence and predictors of apical lymph node involvement in locally advanced	Ongoing	
		rectal cancers in the era of combined modality therapy.		
	1	GYNAEC & GENITO-URINARY		
23	Jayaprakash PG	Dosimetric comparison of Volumetric. Modulated Arc therapy with fixed field IMRT	Ongoing	
		for carcinoma prostate.		
24	Jayaprakash PG	MRI validation of ultrasound based conformal intracavitary brachytherapy in carcinoma cervix	Ongoing	
25	Jayaprakash PG	3D conformal versus intensity modulated radiotherapy technique in muscle invasive	Ongoing	
		bladder cancer, A dosimetric comparison		
26	Francis V. James	Prognostic factors for Carcinoma endometrium	Ongoing	
27	Rema P	Validation of laparoscopy based score for predicting surgical outcome in patients	Ongoing	
		undergoing interval debulking for advanced ovarian carcinoma.		
28	Suchetha S	A prospective randomized controlled trial investigating the role of subcutaneous	Ongoing	
		suction drain in the prevention of superficial surgical site infections following midline		
20		laparotomy in gynecological oncosurgery.		
29	Suchetha S	CA 125 as predictor of lymph node metastases in early endometrial carcinoma.	Completed	
		HAEMATOLOGICAL & LYMPHORETICULAR		
30	Geetha N	Epstein Barr Virus expression in Hodgkin's lymphoma: a prospective study.	Ongoing	
31	Geetha N	Prospective study of melphalan, prednisolone and lenalidomide in the treatment of	Completed	
22		elderly patients with newly diagnosed multiple myeloma		
32	Geetha N	Prospective study of CDEP chemotherapy in patients with relapsed/refractory multiple myeloma	Completed	
33	Geetha N	Correlation of BCR-ABL1 transcript levels at 3 rd month with subsequent	Ongoing	
55	Geelina IN	cytogenetic response in chronic myeloid leukemia patients in chronic phase	Ongoing	
		treated with imatinib mesylate.		
34	Geetha N	Free Light chain assay in Non Hodgkin's Lymphoma and its correlation with outcome	Ongoing	
35	Geetha N	FLT 3 mutation and its prognostic significance in newly diagnosed acute myeloid	Ongoing	
		leukemia in adults.		
36	Geetha N	the prognostic significance of myeloid antigen expression in acute lymphoblastic leukemia in adolescents and adults: A follow up study.	Ongoing	
37	Geetha N	A prospective study of NFkB expression in newly diagnosed multiple myeloma and	Ongoing	
57	Geelia IN	its correlation with response to bortezomib.	Origoing	
38	Geetha N	The prognostic value of absolute lymphocyte and monocyte count and the	Ongoing	
		lymphocyte to monocyte ratio at diagnosis in patients with Hodgkin's lymphoma: A		
		follow up study.		
39	Geetha N	The prognostic significance of absolute lymphocyte and monocyte count and	Ongoing	
		the lymphocyte to monocyte ratio at diagnosis in patients with non Hodgkin's		
		lymphoma: A follow up study.		
		HEAD & NECK		
40	Paul Sebastian	A prospective randomized study comparing harmonic scalpel versus electro cautery	Completed	
41	Devee dee K	for harvesting of pectoralis major myocutaneous flap in oral cancer reconstruction.	Canadat	
4	Ramadas K	Frequency of human papillomavirus infection in oral squamous cell carcinoma and its clinical significance: A retrospective study.	Completed	
	Samples studied 201. LIDV			
	Samples studied-201; HPV ‡	JUSILIVE CUSES-0.0 /0		

42	Bipin T. Varghese	Prospective randomized studies comparing the efficacy of watch and wait policy with	Ongoing	
42	Bipin I. vargnese	neck dissection in clinical superficial tongue squamous cell cancers with N0 status.	Ongoing	
43	Bipin T.Varghese	Matched pair analysis of outcomes of conventional versus microvascular	Ongoing	
		reconstruction in head and neck cancers.		
	50 cases studied so far. Inte	erim reports presented at Greece conference.		
44	Bipin T.Varghese	Salivary neoplasms - therapeutic and functional outcome : a retrospective study	Ongoing	
45	Bipin T.Varghese	Oncological outcomes of marginal mandibulectomy in oral cancer.	Ongoing	
46	Balagopal PG	Metastatic lymph node ratio as an independent prognostic factor in carcinoma	Completed	
		tongue- a prospective study.		
47	Balagopal PG	A study on the use of alternative medicines in the management of head	Ongoing	
		and neck cancers		
48	Elizabeth Mathew lype	Evaluation of outcome and the incidence of laryngoesophageal dysfunction in T3	Ongoing	
		laryngeal and hypopharyngeal malignancies treated by chemoradiation.		
49	Elizabeth Mathew lype	Hypoxia inducible factor, HIF– I alpha expression as an indicator of clinical profile,	Ongoing	
		tumour characteristics and locoregional control in squamous cell carcinoma of the		
		Tongue		
50	Nebu Abraham George	Role of post thyroidectomy serum parathormone and serum calcium levels in	Ongoing	
		predicting long term hypocalcaemia.		
51	Nebu Abraham George	Efficacy of frozen section in assessing depth of invasion in early squamous cell	Ongoing	
		carcinoma of the tongue.		
52	Ramadas K	Comparison between conventional and accelerated hyper-fractionation	Completed	
		radiotherapy schedules in oral cavity cancers.		
	Sample size - 70 patients			
		superior for patients treated with accelerated hyper fractionation compared to conventi	onal fractionation	
	(76.9% Vs 54.7%).	1		
53	Ramadas K	A dosimetric analysis of the benefit of one time adaptive radiotherapy in IMRT for	Completed	
		squamous cell carcinoma of the orophaynx.		
	-	he dosimetric benefit of one step replanning midway through the treatment course. Ac		
	-	e of treatment during IMRT helps to ensure adequate dose to the target volumes and sa	fe doses to critical	
	normal structures.	1		
54	Rejnish Kumar R	Comparison of weekly Vs three weekly cisplatin concurrent with radiation in the	Completed	
		treatment of locally advanced head and neck squamous cell carcinoma		
55	Rejnish Kumar R	Patterns of care and treatment outcomes of squamous cell carcinoma	Ongoing	
		hypopharynx: a single institution experience		
		l at analysing the clinical profiles and treatment outcomes of hypopharyngeal squamo		
		Cancer Centre, Trivandrum, during the time period 1st Jan 2010 - 31st Dec 2011. As of		
		1 up.An interim analysis done with 164 patients Followed up until August 2014, 3 yr DFS	was 41.7% and	
	3 Yr OS was 44.1%			
56	Rejnish Kumar R	Prospective evaluation of dosimetric parameters, acute toxicities and quality of life	Ongoing	
		in patients undergoing IMRT for carcinoma nasopharynx.		
57	Cessal Thommachan	Prospective evaluation of toxicities and quality of life in patients undergoing post-	Ongoing	
	Kainackal	op chemoradiation for head and neck cancers.		
58	Cessal Thommachan	Clinical profile and treatment outcomes of Squamous Cell Carcinoma (SCC)	Ongoing	
	Kainackal	Oropharynx: A single institution study		
	This was a retrospective st	udy done to analyse the clinical profile and treatment outcomes of squamous cell carci	noma oropharynx	
	treated at Regional Cancer Centre (RCC), Trivandrum, India during the time period 2007 to 2010. At an interim analysis the 3-year DFS			
	and OS were 50.1% and 5	6.5 % respectively.		

		PAEDIATRIC ONCOLOGY			
59	Kusumakumary P	Clinical profile and outcome of pediatric osteosarcoma patients	Ongoing		
60	Kusumakumary P	Etiological profile of seizure in children with acute lymphoblastic leukemia undergoing chemotherapy	Ongoing		
61	Kusumakumary P	Profile of infections during induction chemotherapy in children with ALL	Ongoing		
62	Kusumakumary P	Troponin I to detect early anthracycline induced cardiomyopathy in children with Acute Leukemia	Ongoing		
63	Priyakumari T	Detection of metabolic syndrome during treatment for Acute Lymphoblstic Leukemia in children	Ongoing		
64	Priyakumari T	Metabolic emergencies during induction chemotherapy in pediatric patients with Acute Lymphoblastic Leukemia	Ongoing		
		CANCER EPIDEMIOLOGY			
65	Aleyamma Mathew	Assessment of completeness in Trivandrum cancer registry data: capture-re- capture method	Completed		
66	Aleyamma Mathew	Conditional logistic regression model for a 1:1 age matched case-control study on male bladder cancers	Completed		
67	Preethi Sara George	Burden of cancer in Trivandrum, Kerala: sensitivity analysis for disability-adjusted life years	Completed		
68	Preethi Sara George	Bias in breast cancer survival estimates when non-uniform loss to follow-up among prognostic factors	Completed		
		CANCER RESEARCH	1		
69	Hariharan S	Blastic transformation of CML; cytogenetic and molecular Mechanisms orchestrating the disease progression	Ongoing		
	This study is an attempt t	o identify the molecular marker(s) that can predict the relentless progression of CML- CP to	BC. Even with the		
			most aggressive treatment, almost all patients entering the blastic transformation die of acute leukaemia within a few months. Therefore,		
1					
		ar lesions heralding the advanced disease phases is hoped to both provide a marker for existin			
	finding secondary molecul		ng treatments and		
	finding secondary molecul reveal targets for new the	ar lesions heralding the advanced disease phases is hoped to both provide a marker for existing	ng treatments and ious chromosomal		
	finding secondary molecul reveal targets for new the abnormalities and /or gen	ar lesions heralding the advanced disease phases is hoped to both provide a marker for existin rapies in the future. It is hoped that the present study may identify or characterize the vari	ng treatments and ious chromosomal		
70	finding secondary molecul reveal targets for new the abnormalities and /or gen	ar lesions heralding the advanced disease phases is hoped to both provide a marker for existin rapies in the future. It is hoped that the present study may identify or characterize the vari ne alterations responsible for disease progression. The identified gene (s) might serve as prog	ng treatments and ious chromosomal		
70	finding secondary molecul reveal targets for new the abnormalities and /or gen to recognize patients at d Hariharan S	ar lesions heralding the advanced disease phases is hoped to both provide a marker for existin rapies in the future. It is hoped that the present study may identify or characterize the vari be alterations responsible for disease progression. The identified gene (s) might serve as prog iagnosis with an increased probability for development of BC.	ng treatments and ious chromosomal gnostic marker (s) Ongoing		
70	finding secondary molecul reveal targets for new the abnormalities and lor gen to recognize patients at d Hariharan S We are planning to includ	ar lesions heralding the advanced disease phases is hoped to both provide a marker for existin rapies in the future. It is hoped that the present study may identify or characterize the vari are alterations responsible for disease progression. The identified gene (s) might serve as programs iagnosis with an increased probability for development of BC. Identification of Novel Prognostic markers in Pediatric Leukemia.	ng treatments and ious chromosomal gnostic marker (s) Ongoing diagnosis shall be		
70	finding secondary molecul reveal targets for new the abnormalities and /or gen to recognize patients at d Hariharan S We are planning to includ collected after getting info	ar lesions heralding the advanced disease phases is hoped to both provide a marker for existing trapies in the future. It is hoped that the present study may identify or characterize the variate alterations responsible for disease progression. The identified gene (s) might serve as progragonous with an increased probability for development of BC. Identification of Novel Prognostic markers in Pediatric Leukemia. de 100 patients for this study. Bone marrow/Peripheral blood samples of these patients at	ng treatments and ious chromosomal gnostic marker (s) Ongoing diagnosis shall be (Short term Bone		
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	Chapter in Book
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Administration, Standing Committees & Right to Information

a. ADMINISTRATION

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



b. STAFF STRENGTH

Type of Staff	of Staff Permanent Temporary Daily wages Deputat		Deputation Consultants eng		Total			
	Existing	New Recruits			In	Out		
Academic	104	6					4	115
Non-Academic	592	70	24	106	4		4	796
Total	696	76	25	106	4		8	911

c.ACADEMIC STAFF STRENGTH

Professors-15, Additional Professors-33, Associate Professors-24, Assistant Professors-28, Lecturers-8.

d. NON-ACADEMIC STAFF

Sreekumaran Nair P (Sri)

Driver Sr.Gr.

Administrative Office		Clinical Laboratory	
Anil Kumar V (Sri)	Sr. Administrative Officer	Thomas Abraham (Dr.)	Scientific Officer Gr. I
Lalitha B (Smt)	Asst. Admin Officer Gr. I	Gangadevi C (Smt)	Technical Officer (Lab)
Sylaja C (Smt)	Office Asst. Sel.Gr	Usha J (Smt)	Technical Officer (Lab)
Jumailathu Beevi K M (Smt)	Office Asst. Sel.Gr	Helen B (Smt)	Technical Officer (Lab)
Snehalatha H B (Smt)	Office Asst. Sel.Gr	Rajesh K R (Sri)	Technical Officer (Lab)
Vijayan S (Sri)	Office Assistant Sr Gr.	Renuka P (Smt)	Technical Officer (Lab)
Kalpana Soni S (Smt)	Office Assistant	Ajaya Kumar R (Sri)	Lab. Technician Sr.Gr.
Sudevi R (Smt)	Sr Personal Asst.	Jaya Kumar B (Sri)	Lab.Technician Sr.Gr.
Ambili S (Smt)	Clin Records Asst.	Riyad R A (Sri)	Lab.Technician Sr.Gr.
Seethalakshmi P S (Smt)	Despatcher	Saneela S (Smt)	Lab.Technician Sr.Gr.
Devaraja Panicker K (Sri)	Senior Helper	Sindhumony S (Smt)	Lab.Technician Sr.Gr.
Balachandran L (Sri)	Senior Helper	Sini L S (Smt)	Lab.Technician Sr.Gr.
Suliman S (Sri)	Hospital Attender	Sreelekha V K (Smt)	Lab.Technician Sr.Gr.
Cancer Epidemiology & Bio-sta	tistics	Trophy S (Sri)	Lab.Technician Sr.Gr.
Anita Nayar (Smt)	Social Investigator Sel. Gr.	Veena Devi Thankachy V S (Smt)	Lab.Technician Sr.Gr.
Asha N M (Smt)	Clerk Gr.I	Beena Rani A S (Sri)	Lab. Technician
Prasanth Kumar R K (Sri)	Data Entry Operator Gr.I	Anil Kumar R (Sri)	Senior Helper
Cancer Research	/	Gopa Kumar (Sri)	Senior Helper
SreelekhaTT (Dr.)	Scientific Officer Gr.I	Clinical Services & Medical Record	ds
	(till 6.5.14)	Chandrika D (Smt)	Medical Records Officer Gr. I
Hareendran N K (Sri)	Research Assistant Gr. I	Sreekumar B (Sri)	Asst. Admn. Officer
Vikraman Nair K (Sri)	Sr. Animal House Keeper	Ambily O (Smt)	Clerk Gr. I

Anil Kumar K (Sri) Geetha O (Smt) John S (Sri) Jaya Kumar P (Sri) Kumari Bindu P K (Smt) Mariamma M A (Smt) Pradeep Kumar B (Sri) Siju R. Nair (Smt) Sreelatha S (Smt) Thankamony Amma P (Smt) Nikhil S Baiju (Sri) Padmaraian R (Sri) Sherly K Ninan (Smt) Girija R (Smt) Bindu Sadasivan (Smt) Ajitha S (Smt) Gireesh S (Sri) Liji S (Smt) Kaladevi S (Smt) Savitha VM (Smt) Praveen | Nair Jayalekshmi P (Smt) Sasidharan Nair N (Sri) Nazaruddin S (Sri) Premachandran Nair S (Sri) Anil Kumar T.T. (Sri) Balachandran B.K (Sri) Rajeendran GC (Sri) Ajitha Kumari R B (Smt) Mariyamma Varghese (Smt) layasree R (Smt) Amrithamma M (Smt) Sivankutty K (Sri) Hari C (Sri)

Community Oncology

Sreekumar C (Sri) Jeena Joseph N (Smt)

Director's Office

Antony P (Sri) Louis T C (Sri)

ECDC, Ernakulam

Latha A (Dr) James Thomas M (Sri) Clerk (MRT) Gr. I Clerk Gr. I Clerk (MRT) Gr. I Clerk Gr.I Clerk Gr. I Clerk Sr. Gr. Clerk Gr. I Clerk Sr. Gr. Clerk Sr. Gr. Clerk Gr. I Clerk Typist Data Entry Operator Gr. I Clinical Records Assistant Coding Clerk Driver Sel.Gr. Driver Gr. I Driver Sr. Gr. Driver Driver Driver Senior Helper Senior Helper Helper Hospital Assistant Hospital Assistant Dark Room Asst. Gr. I

Social Investigator Sr.Gr. Protocol Nurse

Despatcher Hospital Assistant

Cytopathologist Technical Officer (Cyto) Radha C (Smt) Lijo T V (Sri) Renjini Thomas (Smt) Ambika T B (Smt) Gracy George (Smt) Letha B (Smt) John Evidus P P (Sri)

ECDC, Palakkad

Rekha SR (Dr) Sanil P N (Sri) Nirmala K C (Smt) Abdul Rahiman P M (Sri)

Engineering Wing

Alex Varghese (Sri) Rajendran K R (Sri) Santhosh Kumar A R (Sri) Venugopalan Nair V R (Sri) Giji P S (Sri) Jayakumar P (Sri) Rajmohan M B (Sri) Suresh Kumar G (Sri) Sunil Kumar R (Sri) Deepu S S (Sri) Sivarajan L (Sri) Jayanthy J K (Smt) Jayabalan Nair B (Sri) Shalin Raj R (Sri) Rajan P C (Sri) Sanjayan S (Sri)

Finance & Accounts

Shajahan K (Sri) Mathai KO (Sri) Sasikumar K (Sri) Beena N (Smt) Saraladevi P G (Smt) Johnson X (Sri) Sheela Kumari R (Smt) Sheena Saju Remila C K (Smt) Girija Kumari L S (Smt) Mallika Devi S (Smt) Ajitha O S (Smt) Veena C L (Smt) Cytotechnologist Sr.Gr. Lab.Technician Sr.Gr. Lab.Technician Sr.Gr. Staff Nurse Sr. Gr. Staff Nurse Typist Gr. I Hospital Assistant

Resident Medical Officer Cytotechnologist Staff Nurse Gr. I Senior Helper

Asst. Ex. Engineer (Civil) Supervisor (Electrical) Sr.Gr. Supervisor (Electrical) Sr.Gr. Supervisor (Electrical) Supervisor (Electrical) Electrician Gr.I Electrician Gr.I Flectrician Flectrician Flectrician Electronic Technician Sr.Gr. Data Entry Operator Sr.Gr. Plumber Gr. I Plumber Senior Helper Plumber

Controller of Finance Accounts Officer Asst. Internal Audit Officer Gr. I Asst. Accounts Officer Gr.I Asst. Accounts Officer Cashier Cum Receptionist Sr.Gr. Cashier Sel.Gr. Cashier Office Assistant Sel.Gr. Office Assistant Sr.Gr. Senior Personal Assistant Office Assistant Sr. Gr. Office Assistant Sr. Gr. Shajkumar K R (Sri) John Joseph (Sri) Sheeja S.S. (Smt) Usha V (Smt) Prabhavathi Devi AK (Smt)

Imageology

Asha S (Smt) Binoy B G (Sri) Jayakumar P (Sri) Joe D'cruz A (Sri) Savithri Amma B (Smt) Pradeep S (Sri) Prasad P P (Sri) Santhosh Kumar C S (Sri) Sathyalekha S I (Smt) Shailesh Kumar K N (Sri) Udayakumar K R (Sri) Sreelekha L D (Smt) Veena R R (Smt) Vijayakumar C (Sri)

Information Systems

Neelima N (Smt) Rajesh P (Sri) Shaji J (Sri) Pradeep Chandran (Sri) Basil Varghese (Sri) Suseela Devi B (Smt)

Library & Information Services

Vishnu V (Dr)

Saji S Nair (Sri) Ganga A P (Smt) Balachandran K G (Sri) Vijayakumaran Nair R (Sri)

Medical Oncology

Lali V S (Dr) Archana Surendran (Dr.)

Nuclear Medicine

Sheela V (Smt) Bindu B (Smt) Minyamma K (Smt) Sindhu P (Smt) Sheeja S R (Smt) Office Assistant Sr Gr. Office Assistant Gr. I Office Assistant Data Entry Operator Sr.Gr. Clerk Gr. I

Radiation Technologist Radiation Technologist Radiation Technologist Technical Officer (Radiation) Junior Personal Assistant Technical Officer (Radiation) Radiation Technologist Radiation Technologist Hospital Attender

Systems Manager

System Analyst System Analyst Junior System Analyst Junior System Analyst Data Entry Operator Sr.Gr.

Librarian cum

Information Officer Library Assistant Gr. I Clinical Records Assistant Senior Helper Audio Visual Operator Gr. I

Resident Medical Officer Gr. I Resident Medical Officer

Technical Officer (Radiation) Technical Officer (RIA) Technical Officer (RIA) Technical Officer (RIA) Radiation Technologist Sel.Gr. Sibi K S (Smt) Sunitha S (Smt) Salini PS (Smt) Ananda Kumar K (Sri) Usha R (Smt)

Nursing Services

Sreelekha R (Smt) Flower Augustine (Smt) Geetha S (Smt) Lizyamma Jacob (Smt) Mariamma James (Smt) Sally Abraham (Smt) Prasanna Kumari S (Smt) Rajila Beegum (Smt) Sunitha Kumari R (Smt) Vijayalekshmy Ammal (Smt) Sheela Rodriguez (Smt) Jaya T S (Smt) Jikki M (Smt) Sheeba SV (Smt) Shobha S (Smt) Vijaya A K (Smt) Aniamma Joseph (Smt) Geetha Kumari B S (Smt) Shema C (Smt) Sindhu S (Smt) Aleyamma Mathew (Smt) Bensamma Varghese (Smt) Sindhu G S (Smt) Siva Kumari P R (Smt) Elsamma Joseph (Smt) Ajitha T L (Smt) Anila Kumari S (Smt) Chandrika P (Smt) Ilin William (Smt) Indira Devi G (Smt) Indu V S (Smt) Indulekha (Smt) Jessy Thomas (Smt) Kumari Sindhu S (Smt) Laly Joseph (Smt) Mangalam S (Smt) Marykutty Mathew (Smt)

Radiation Technologist Radiation Technologist Radiation Technologist R I A Technician Gr. I Data Entry Operator Gr.I

Chief Nursing Officer Nursing Supt. Gr. I Nursing Supervisor Nursing Supervisor Nursing Supervisor Nursing Supervisor Head Nurse Sr. Gr. Head Nurse Gr. I Head Nurse Gr. I Head Nurse Gr. L Head Nurse Gr. I Head Nurse Gr. I Head Nurse Gr. I Head Nurse Gr. L Head Nurse Staff Nurse Sr. Gr. Staff Nurse Sr. Gr.

Ranichandra V (Smt) Rethidevi G S (Smt) Sajitha S (Smt) Saraswathy Amma P (Smt) Sherly M (Smt) Shijikumary N G (Smt) Suma PV (Smt) Swapna C R (Smt) Abraham Shini (Smt) Ajitha S (Smt) Anitha Kumary PV (Smt) Alevamma Chacko (Smt) Bindhu M (Smt) Bindhu PD (Smt) Bini A (Smt) Binu O (Smt) Geetha Kumari D (Smt) Joby Paul (Smt) Leemol Mathew (Smt) Jyothilekshmi D (Smt) Moly MT (Smt) Mareena Silas (Smt) Rosamma Joseph (Smt) Nisha Vidyadhar R (Smt) Lizy Varkey (Smt) Sheeba P (Smt) Sindhumol M G (Smt) Sophiya Lilly (Smt) Jainamma Standal (Smt) Sheeja DB (Smt) Sheeja Samuel (Smt) Abdul Jaseer E (Sri) Ajila M S (Smt) Ajitha S (Smt) Amrutha L Raj (Smt) Aneeta | George (Smt) Anjay P (Smt) Annamma E I (Smt) Anupama B (Smt) Anupama Susmitha (Smt) Aradhana S (Smt) Archana M Nair (Smt) Ariya Sreedharan B (Smt) Aswathy M R (Smt)

Staff Nurse Sr. Gr. Staff Nurse Gr. L Staff Nurse Gr. I Staff Nurse Gr. L Staff Nurse Gr. I Staff Nurse Gr. L Staff Nurse Gr. L Staff Nurse Gr. I Staff Nurse Staff Nurse

Baijudeen B (Sri) Beena K G (Smt) Bency Varghese (Smt) Biji P R (Smt) Bilna Sasi (Smt) Bincy Lukose (Smt) Bindhu K G (Smt) Bindhu Rani PV (Smt) Bindu B (Smt) Bindu Kumari T C (Smt) Bini R (Smt) Cherupushpam M (Smt) Chithra V G (Smt) Daisy A (Smt) Deepa A S (Smt) Deepa R (Smt) DeepaTP (Smt) Divya Das S (Smt) Ducakis S (Smt) Fathima S (Smt) Fathima Suhra M (Smt) Georgia George (Smt) Gigi Mol Chacko (Smt) Girija L (Smt) Gracy Sebastian (Smt) Irshad A P (Sri) Jaichitra MV (Smt) Jamshad P (Smt) Jasna P K (Smt) Jayasree C G (Smt) leeja Rajan (Smt) Jesna R (Smt) lijimol S | (Smt) Julie Mariam Jacob(Smt) Karthika Raj K S (Smt) Kavitha S G (Smt) Kochuthresia PV (Smt) Kumari Sobha D (Smt) Ligi Das R S (Smt) Lija K (Smt) Linsa George (Smt) Manju V P (Smt) Manjusha G S Manoj G S (Sri)

Staff Nurse Staff Nurse

Maya N Nair (Smt) Maya S S (Smt) Mayadevi L (Smt) Neethu Jacob (Smt) Nisha K N (Smt) Nisha KThomas (Smt) Niza A Khalam (Smt) Preeja S (Smt) Preetha A (Smt) Preetha P Nair (Smt) Preetha S (Smt) Preetha Thomas (Smt) Preethi P R (Smt) Priva K L (Smt) Rajani RV (Smt) Rajaram S K (Sri) Rajesh Kumar S (Sri) Raji K R (Smt) Rani Thomas (Smt) Rashid E K (Sri) Reena A (Smt) Reena P Stanley (Smt) Rejani Mole A (Smt) Remya R Chandran (Smt) Renjini R S (Smt) Renjini S R (Smt) ResmiV (Smt) Roja S Anand (Smt) Rugmini M D (Smt) Saji G S (Smt) Saloma PS (Smt) Sandhya G (Smt) Sandhya V Nair (Smt) Sandhyamol K S (Smt) Sangeetha K S (Smt) Saritha S S (Smt) Shabeerali K (Sri) Sharmi N (Smt) Sheeba PVarghese (Smt) SheebaVL (Smt) Sheeja BT (Smt) Sheeja H (Smt) Sheeja Kumari G (Smt) Sherry M (Smt)

Staff Nurse Shijitha K S (Smt) Shiny George (Smt) Shiny P Thankappan (Smt) Simmy Panicker S (Smt) Sindhu K (Smt) Sindhu L (Smt) Sindhu P 5377 (Smt) Sindhu P Nair (Smt) Sindhu R (Smt) Sindhu V (Smt) Smitha S Nair (Smt) Soni John (Smt) Sreeja A P (Smt) Sreeja M S (Smt) Sreeja S (5233) (Smt) Sreekala N S (Smt) Sreekala P (Smt) SreekalaT (Smt) Sreekumaran Pillai V (Sri) Sreelatha C S (Smt) Sreelekha S (Smt) Sukanya Kumari S R (Smt) Suma V (Smt) Suma John (Smt) Suma K (Smt) Suma P S (Smt) Sumam L (Smt) Sumathy P (Smt) Sumayya E K (Smt) Suni Mathew (Smt) Sunitha L (Smt) Swopna K (Smt) Thara S S (Smt) Vasanthakumari R (Smt) Archana C S (Smt) Shibin Rani M (Smt) Sahiya VV (Smt) Jafna N (Smt) Arathy S R (Smt) Aparna A(Smt) Anees A (Sri) Manju Punnen(Smt) Savitha V(Smt)

Staff Nurse (Resigned 31/8/15) Staff Nurse Staff Nurse

Reshmi V P K(Smt) Neetha Abraham(Smt) Nirmal G (Sri) Ajith Clement C (Sri) Resmi V R(Smt) Gayathri Devi K S(Smt) Keerthy M S(Smt) Lekshmi P Nair(Smt) Asha A(Smt) Harish Nair M(Sri) Manju V M(Smt) Divva Pauly(Smt) Usha Rani E N(Smt) Bismi N S(Smt) Likha Prasad(Smt) Rincy Rajan(Smt) Jamsheena E M(Smt) Aswathy S(Smt) Anuroop | S(Sri) Rosamma PT(Smt) Surya S(Smt) Ajeesh K(Sri) Neethumol N M(Smt) Dhanya Krishnan M G(Smt) Anju Dominic(Smt) SoumyaT L(Smt) Abhilash Michael(Sri) Aishwarya P G(Smt) Vishnu Prasad V S(Sri) Meenu M R(Smt) Devi Prabhu P(Smt) Arya P(Smt) Biyas S B(Smt) Joseph Jennings M M(Sri) Binson Baby(Sri) Sajisha E S(Smt) Sandhya Rapheal(Smt) Bisni Luckose(Smt) Muhammed Anwar V P M(Sri) Sivaranjini V M(Smt) Reshmi E R(Smt) Dhanya A S(Smt) Shiyas S R(Sri) Kavitha G S(Smt)

Staff Nurse Mohammad Sajin N(Sri) Alex John(Sri) Ashwathi | C(Smt) Laiby V Elizabeth(Smt) Kavitha Mohan L(Smt) Dhanya | S(Smt) Geethu Karun(Smt) Shirly Joseph(Smt) Keerthi R Pillai(Smt) Jubilet Malar C (Smt) Sreekumari N (Smt) Kumari Sindhu T S (Smt) Sheela M (Smt) Mini A K (Smt) Jessy Thomas (Smt) Varghese Thomas (Sri) Deenamma M | (Smt) Sunila R S (Smt) Smitha D (Smt) Ambily T K (Smt) Kumari Prameela R G (Smt) Sheeja Rani G (Smt) Usha L (Smt) Jaya Kumari R (Smt) Reeja A S (Smt) Sreekumari M (Smt) Jessy Xavier (Smt) Subhadra T K (Smt) Hendit Florin S D (Smt) Beenamma Chacko (Smt) Mary Helen S (Smt) Deepthi S S (Smt) Sherly P K (Smt) Rema K (Smt) Felcy Jesslet A (Smt) Ambika V (Smt) **Bigimol Dominic (Smt)** Shaiia K (Smt) Geetha S (Smt) Sneha Latha S (Smt) Suja Kuruvilla (Smt) Laly V | (Smt) Suja V (Smt) Sindhumol V A (Smt)

Staff Nurse Nursing Assistant Nursing Assistant

Sajini John (Smt) lessy Philipose (Smt) Shyni John (Smt) Sheeba P K (Smt) Priya S (Smt) Sudha S (Smt) Bindu A B (Smt) Sithalekshmi V S (Smt) Mariamma Joseph (Smt) Geetha P K (Smt) Bindhu S (Smt) Sali Varughese (Smt) Manju I (Smt) Babitha Beegam R (Smt) Sunitha Devi R R (Smt) Ranjini R (Smt) Manju C (Smt) Jayasree S (Smt) Sheeba L (Smt) Subha Moly O (Smt) Sujakumari L (Smt) Sreelatha S (Smt) Manjusha V (Smt) Sheeja R (Smt) Kala L K Nair (Smt) Sandhyakrishnan L (Smt) Sheeja Raj (Smt) Sari A S (Smt) Darley Grace A E (Smt) Minimol S S (Smt) Gangadharan V (Sri) Rajan | (Sri) Santhakumary A (Smt) Sajeesh C.K. (Sri) Ajithakumari N K (Smt) Ambili S (C) (Smt) Anila Kumary S (Smt) Anitha Kumary Amma M (Smt) Anitha V(Smt) Baby D (Smt) Chandramathi Amma S (Smt) Chandrasekharan Nair M (Sri) Durgadevi B(Smt) Ebsiba D (Smt)

Nursing Assistant Gardener Gr. I Cleaner Cleaner

Geethakumari K(Smt) Girija S (Smt) Gopakumar P (Sri) Jayanthi D (Smt) Justin Raj T (Sri) Kala Krishnan (Smt) Kaladevi B (Smt) Lysal S (Smt) Lathakumary K (Smt) Radha S (Lathika, S) (Smt) Lethakumari K (Smt) Mallika V (Smt) Moly B (Smt) Newton C (Sri) Omana D (Smt) Pradeep A (Sri) Prasanna S (Smt) Premaletha OT (Smt) Pushpa T (Smt) Pushpakumari P (Smt) Radha R (Smt) Rajalakshmy R (Smt) Raheela N (Smt) Rajeswari L (Smt) Raju T (Sri) Remadevi R (Smt) Remany R (Smt) Retnamma P (Smt) Saju F (Sri) Syamala T (Sakunthala. T) (Smt) Sarojam D (Smt) Sarojam T (Smt) Sasikala P (Smt) Sailaja A (Smt) Kumari Sailaja K P (Smt) Sobhana S (Smt)-2200 Sobhana S(Smt)-2218 Sreekanton K (Sri) Sreelatha P (Smt) Stalin Bright N (Sri) Subhashini K (Smt) Sukumary L (Smt) Suma L (Smt) Sunilkumar G (Sri)

Cleaner Sureshkumar K (Sri) Sushama G(Smt) Syamalakumari S (Smt) Thankamoni M (Smt) Thanky S (Smt) Thulasi P (Smt) Unnikrishnan S (Sri) Valsala P (Smt) Valsala T K (Smt) Vanajakumari P (Smt) Vijayakumar S (Sri)

Palliative Medicine

Prasanth CV (Dr.) Manju Achamma Varghese (Dr.) Dennison G (Sri) Sanal AD

Pathology

Najeeya S (Smt) Nataraj A (Sri) Brinda T P (Smt) Saina A (Smt) Sulochana S (Smt) Veena V S (Smt) Jayalal K S (Sri) Mani K S (Sri) Anitha S (Smt) Lathamalathy L (Smt) Jayasree P S (Smt) Jiju J S (Sri) Sheena Rani G.S. (Smt) Krishnankutty R (Sri)

Pharmacy & Store

Suresh G (Sri) Dinesh P S (Sri) Shaji SS (Sri) Mini KL (Smt) Krishnapriya V (Smt) Saritha SS (Smt) Jalaja Kumari V S (Smt) Thomas Rajasekharan (Sri) Vimal Kumar Y S (Sri)

Project Cell

Vijayakumar G (Sri) Thrivikraman Nair M G (Sri) Cleaner Cleaner Cleaner Cleaner Cleaner Cleaner Cleaner Cleaner Cleaner Cleaner

Cleaner

Resident Medical Officer Resident Medical Officer Manufacturing Chemist Skilled Worker

Technical Officer (Lab) Cytotechnologist Sel.Gr. Cytotechnologist Sr.Gr. Cytotechnologist Sr.Gr. Cytotechnologist Sr.Gr. Lab.Technician Sel.Gr. Lab.Technician Sr.Gr. Typist Senior Helper

Stores Officer Pharmacist Gr. I Pharmacist Pharmacist Pharmacist Pharmacist Senior Helper Helper

Project Assistant Sr. Gr. Clerk Gr. I Purchase Sasikumar SV (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) Technical Officer (Radiation) Radhakrishnan NairT (Sri) Sherif | S (Sri) Technical Officer (Radiation) Sreekala R (Smt) Technical Officer (Radiation) Mariamma 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) Technical Officer (Radiation) Premeela DeviT (Smt) Technical Officer (Radiation) Jayasree C G (Smt) Technical Officer (Radiation) Suja B R (Smt) 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. Radiotherapy Technologist Sr.Gr. Maheswari | (Smt) 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 | (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 Receptionist Gr. I	St
Sreekumar C (Sri)	Tel.Operator Cum	a. So
Receptionist		Ι.
Sukumaran Nair R (Sri)	Security Guard	2.
Vikraman Chettiar B. (Sri)	Security Guard	Ζ.
Krishnan Kutty A. (Sri)	Security Guard	3.
Unnikrishnapillai V (Sri)	Security Guard	Э.
Ajithkumar M. (Sri)	Security Guard	4.
Ajikumar S.L.(Sri)	Security Guard	4.
Jayachandran Nair R (Sri)	Security Guard	5.
Supporting Services		Э.
Surendran NairV (Sri)	Public Relations Officer	
Mini N.(Smt)	Dietician Gr. I	6.
Surgical Oncology		
Mohanan Pillai B (Sri)	Theatre Technician	
	(Aneasthesia) Sr.Gr.	7.
Abin Issac (Sri)	Operation Theatre	
	Technician	
Rajendran Nair P (Sri)	Operation Theatre	8.
	Technician	
Manju RS (Smt)	Operation Theatre Technician	
Kirankumar (Sri)	Operation Theatre Technician	9.
Santhosh S (Sri)	Operation Theatre Technician	
Jayasree S (Smt)	Typist Gr. I	
Viswakumar N (Sri)	Typist Gr. I	10.
Suresh P S (Sri)	Senior Helper	
Senan S (Sri)	Senior Helper	
Transfusion Medicine		b. Ir
Bindu A P (Smt)	Scientific Assistant	Ι.
Renukadevi V (Smt)	Lab Technician Sel. Gr.	
Asha S R (Smt)	Lab.Technician Sr.Gr.	
Mini S P (Smt)	Lab.Technician Sr.Gr.	2.
e. Dismissals/Retrenchments: I	Nil	
f. Retirements		3.
Sri.Vijayakumar L : Chief Cons	truction Engineer (30.11.2014)	3.
Smt. Ambikadevi S : Cleaner (3	31.10.2014)	
g. Obituary: Nil		4.
		5.
		5.

Standing Committees

a. Scientific Committee

a. S	cientific Committee	
١.	Dr. Jagan Mohan A. Tharakan	Chairman
	Director, SCTIMST, Thiruvananthapuram	
2.		e 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 Biotechn	ology
	Thiruvananthapuram	
7.	Dr.T. Rajkumar	Member
	Prof. and Head, Dept. of Molecular Oncold	ogy
	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, Thiruvananthapur	am.
b. l	nstitutional Review Board	
Ι.	Dr. Paul Sebastian	Chairman
	Director,	
	Regional Cancer Centre, Thiruvananthapur	am.
2.	Dr. P.G. Jayaprakash,	Member
	Prof. & Head, Division of Radiation Oncold	ogy
	Regional Cancer Centre, Thiruvananthapur	
3.	Dr. K. Ramachandran	Member
	Prof. & Head, Division of Imageology	
	Regional Cancer Centre, Thiruvananthapur	am.
4.	Dr. P. Kusumakumary	Member
	Additional Director	
	Regional Cancer Centre, Thiruvananthapur	am.
5.	Dr. K. Ramadas	Member
	Medical Superintendent	
	Regional Cancer Centre, Thiruvananthapu	ram

	Dr. Iqbal Ahamed M	Member	
	Prof. & Head, Division of Surgical Oncolog		
7	Regional Cancer Centre, Thiruvananthapu		
7.	Dr. K. Jayasree	Member	-
	Prof. & Head, Division of Pathology		
	Regional Cancer Centre, Thiruvananthapu		
8.	Dr. N. Geetha	Member	
	Prof. & Head, Division of Medical Oncolog	gy	1
	Regional Cancer Centre, Thiruvananthapu	ram.	
9.	Dr. Aleyamma Mathew	Member	
	Additional Professor & Head		(
	Division of Cancer Epidemiology & Biosta	tistics	
	Regional Cancer Centre, Thiruvananthapu		
10	. Dr. P. Remani	Member	
	Additional Professor & Head		
	Division of Cancer Research		
	Regional Cancer Centre, Thiruvananthapu	ram	
	. Dr. Rachel Cherian Koshy	Member	
	,	riember	
	Prof. & Head, Division of Anaesthesiology		
	Regional Cancer Centre, Thiruvananthapu	_	
12	. Dr. Francis V. James	Convener	
	Additional Professor		
	Division of Radiation Oncology		
	Regional Cancer Centre, Thiruvananthapu	ram	
		i ai i i.	
	Ethics Committee		
	Dr. M. Narendranathan	Chairman	
	Dr. M. Narendranathan 'Sreenilayam',Veerabhadra Gardens	Chairman	
	Dr. M. Narendranathan	Chairman	
Ι.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai	Chairman am. Member	
Ι.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura	Chairman am. Member	
Ι.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai	Chairman am. Member	
۱. 2.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr	Chairman am. Member	
۱. 2.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram.	Chairman am. Member nology	
۱. 2.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence	Chairman am. Member nology	
۱. 2.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine	Chairman am. Member nology	
۱. 2.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology	Chairman am. Member nology	
1. 2. 3.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram.	Chairman am. Member nology Member	
1. 2. 3.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram. Dr.V. Retnavally	Chairman am. Member nology	
1. 2. 3.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram. Dr.V. Retnavally Prof. of Pharmacology (Rtd.)	Chairman am. Member nology Member	
1. 2. 3.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram. Dr.V. Retnavally Prof. of Pharmacology (Rtd.) 'Lekshmi', House No. 59	Chairman am. Member nology Member	
1. 2. 3.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram. Dr.V. Retnavally Prof. of Pharmacology (Rtd.) 'Lekshmi', House No. 59 Vrindavan Housing Colony	Chairman am. Member nology Member	
1. 2. 3.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram. Dr.V. Retnavally Prof. of Pharmacology (Rtd.) 'Lekshmi', House No. 59 Vrindavan Housing Colony Pattom, Thiruvananthapuram.	Chairman Member hology Member Member	
	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram. Dr.V. Retnavally Prof. of Pharmacology (Rtd.) 'Lekshmi', House No. 59 Vrindavan Housing Colony Pattom, Thiruvananthapuram. Adv. Krishnankutty Nair	Chairman am. Member nology Member	
1. 2. 3.	Dr. M. Narendranathan 'Sreenilayam', Veerabhadra Gardens Pottakuzhi, Pattom P.O., Thiruvananthapura Dr. M. Radhakrishna Pillai Director, Rajiv Gandhi Centre for Biotechr Thiruvananthapuram. Dr. C.C. Kartha Professor of Eminence Department of Molecular Medicine Rajiv Gandhi Centre for Biotechnology Thiruvananthapuram. Dr.V. Retnavally Prof. of Pharmacology (Rtd.) 'Lekshmi', House No. 59 Vrindavan Housing Colony Pattom, Thiruvananthapuram.	Chairman Member hology Member Member	

6.	Smt. Darly Francis 'Bethelehem', D7D Moolayil Lane	Member
	Sasthamangalam, Thiruvananthapuram	
7.	Dr. Sanjeev V.Thomas	Member
<i>'</i> .	Professor of Neurology	Tiernber
	Sree Chitra Tirunal Institute for Science &	Technology
	Thiruvananthapuram.	6/
8.	Dr. Iqbal Ahamed M	Member
	Professor and Head, Division of Surgical C	Dncology
	Regional Cancer Centre, Thiruvananthapu	
9.	Dr. N. Geetha	Member
	Professor & Head, Division of Medical On	cology
	Regional Cancer Centre, Thiruvananthapu	ram
10.	Fr. Shoji Vechoorkarottu	Member
	Technologist & Social Worker	
	St. Aloysius Minor Seminary	
	Cheshire Home Lane, Kuravankonam, Kov	vdiar Post
	Thiruvananthapuram-695003	
11.	Smt.Thankam Gopalakrishnan	Member
	A51, 'Lekshmi', T.C. 9/2638(1), Elankom Ga	
	Vellayambalam, Thiruvananthapuram-6950	
12.	Dr. Rejnish Kumar R	Convener
	Addl. Professor of Radiation Oncology	
	Regional Cancer Centre, Thiruvananthapu	ram.
	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee	ram.
<mark>d. №</mark> .	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent	ram. Chairman
	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash,	Chairman
І. 2.	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy	
١.	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed,	Chairman Member
І. 2. 3.	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology	Chairman Member Member
I. 2. 3. 4.	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology	Chairman Member
І. 2. 3.	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary,	Chairman Member Member Member
 1. 2. 3. 4. 5. 	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology	Chairman Member Member Member Member
 1. 2. 3. 4. 5. 6. 	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology Dr. K. Ramachandran, HOD, Imageology	Chairman Member Member Member Member Member
 1. 2. 3. 4. 5. 6. 7. 	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine	Chairman Member Member Member Member Member
 1. 2. 3. 4. 5. 6. 	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine Dr. Cherian M. Koshy,	Chairman Member Member Member Member Member Member
 I. 2. 3. 4. 5. 6. 7. 8. 	Regional Cancer Centre, Thiruvananthapu Iedical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine Dr. Cherian M. Koshy, HOD, Palliative Care	Chairman Member Member Member Member Member
 1. 2. 3. 4. 5. 6. 7. 	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine Dr. Cherian M. Koshy, HOD, Palliative Care Dr. Beela Sarah Mathew,	Chairman Member Member Member Member Member Member
 I. 2. 3. 4. 5. 6. 7. 8. 9. 	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine Dr. Cherian M. Koshy, HOD, Palliative Care Dr. Beela Sarah Mathew, Addl. Professor, Radiotherapy	Chairman Member Member Member Member Member Member
 I. 2. 3. 4. 5. 6. 7. 8. 9. 	Regional Cancer Centre, Thiruvananthapu Iedical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine Dr. Cherian M. Koshy, HOD, Palliative Care Dr. Beela Sarah Mathew, Addl. Professor, Radiotherapy Dr. R. Rejnish Kumar,	Chairman Member Member Member Member Member Member Member
 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 	Regional Cancer Centre, Thiruvananthapu Iedical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. R. Geetha, HOD, Medical Oncology Dr. R. Kamachandran, HOD, Imageology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine Dr. Cherian M. Koshy, HOD, Palliative Care Dr. Beela Sarah Mathew, Addl. Professor, Radiotherapy Dr. R. Rejnish Kumar, Addl. Professor, Radiotherapy	Chairman Member Member Member Member Member Member Member
 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 	Regional Cancer Centre, Thiruvananthapu 1edical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. P. Kusumamumary, HOD, Paediatric Oncology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine Dr. Cherian M. Koshy, HOD, Palliative Care Dr. Beela Sarah Mathew, Addl. Professor, Radiotherapy Dr. R. Rejnish Kumar, Addl. Professor, Radiotherapy Ms. R. Sreelekha, Chief Nursing Officer	Chairman Member Member Member Member Member Member Member
 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 	Regional Cancer Centre, Thiruvananthapu Iedical Audit Committee Dr. K. Ramadas, Medical Superintendent Dr. P.G. Jayaprakash, HOD, Radiotherapy Dr. Iqbal Ahamed, HOD, Surgical Oncology Dr. N. Geetha, HOD, Medical Oncology Dr. R. Geetha, HOD, Medical Oncology Dr. R. Kamachandran, HOD, Imageology Dr. K. Ramachandran, HOD, Imageology Dr. V.M. Pradeep, HOD, Nuclear Medicine Dr. Cherian M. Koshy, HOD, Palliative Care Dr. Beela Sarah Mathew, Addl. Professor, Radiotherapy Dr. R. Rejnish Kumar, Addl. Professor, Radiotherapy	Chairman Member Member Member Member Member Member Member

e. Hospital Infection Control Committee

е. г	Tospital Infection Control Committee	
١.	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
	uilding Committee	
<u> </u> .	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
	-	Convener
<u>8</u> . L	ibrary Committee Dr. Paul Sebastian, Director	Chairman
1. 2.		
Z. 3.	Dr. P. Kusumakumary, Additional Director	Member
3. 4.	Dr. K. Ramadas, Medical Superintendent	riember
4.	Sri. Shajahan, Controller of Finance	Manahan
F	(Till 15.10.2014)	Member
5.	Sri. R. Sanjeev, Controller of Finance	Manalana
,	(From 16.10.2014)	Member
6.	Dr. K. Ramachandran,	N4 1
7	HOD, Imageology Division	Member
7.	Dr. K. Jayasree, HOD, Pathology Division	Member
8.	Dr.V.Vishnu, Librarian cum	-
	Information Officer	Convener

Right To Information Act

a. Public Information Officers

- I. Sri. KO Mathai, 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. C Shylaja, Office Assistant Sel. Gr. Sri. SV 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: 131

Disposed: 137 (including 6 pending application of the previous year) Pending: 6

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 : I
- 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 2014-2015

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REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Re	
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Schedule	Schedule Liabilities	Current Year (Rs.)	Current Year (Rs.) Previous Year (Rs.) Schedule Assets	Schedule	Assets	Current Year (Rs.) Previous Year (Rs.)	Previous Year (Rs.)
_	CAPITAL FUND	2,00,47,19,182.17	2,00,47,19,182.17 1,78,01,65,072.17	N	FIXED ASSETS	1,98,17,33,730.76	1,75,57,33,299.76
=	SPECIFIC FUNDS	32,87,65,842.80	18,89,99,644.45		PROVISION FOR DEPRECIATION	1,03,03,25,207.12	90,78,23,404.66
	GRANT FROM GOVT. OF INDIA	4,80,00,000.00	4,80,00,000.00			95,14,08,523.64	84,79,09,895.10
	INTEREST ON GOVT. OF INDIA GRANT	1,00,59,462.61	67,83,779.02				
	GRANT FROM GOVT. OF KERALA	56,71,42,586.00	59,07,04,806.00	M	INVESTMENTS	60,89,89,775.00	48,83,34,143.02
	CCL FUND	20,20,23,346.00	16,45,91,104.00				
					CURRENT ASSETS AND LOANS		
=	RADIO THERAPY RESEARCH FUND	7,25,621.00	7,25,621.00		AND ADVANCES		
	CURRENT LIABILITIES AND PROVISIONS				CLOSING STOCK	9,54,37,194.94	10,69,02,581.00
				\times	ADVANCES - OTHERS & OTHER C/A	3,63,89,754.36	2,59,38,372.78
\geq	CURRENT LIABILITIES -OTHERS	1,04,38,94,051.16	50,99,56,024.21	\times	INVESTIGATION FEES RECEIVABLE	72,73,41,881.43	41,19,57,812.06
	PROVISION FOR GRATUITY	4,75,69,930.00	3,87,16,476.00	$\overline{\times}$	BALANCE WITH BANKS	43,74,06,341.06	24,76,88,806.81
>	CREDITORS FOR GOODS SUPPLIED	10,91,27,759.00	10,16,87,360.00	\mathbb{X}	BALANCE WITH TREASURY	87,22,61,012.00	72,50,60,912.00
				ШХ	CASH IN HAND	8,83,586.98	9,78,408.68
				XIX	INCOME & EXPENDITURE A/C	63,19,09,711.33	57,55,58,955.40
	TOTAL	4,36,20,27,780.74	3,43,03,29,886.85		TOTAL	4,36,20,27,780.74	3,43,03,29,886.85
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SIGNIFICANT ACCOUNTING POLICIES NOTES ON ACCOUNTS ≳≳

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

Thiruvananthapuram

DR. PAUL SEBASTIAN (Director) 18th January 2017

(Controller of Finance) **R. SANJEEV**

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

As per my report of even date attached

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg.No. 567/81) INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 st MARCH 2015

Schedule	Expenditure	Current Year	Previous Year	Schedule	Income	Current Year	Previous Year
		(Rs.)	(Rs.)			(Rs.)	(Rs.)
	Opening Stock	10,69,02,581.00	6,64,44,381.00		Grant-in-aid - Govt of Kerala	30,65,40,000.00	26,64,00,000.00
A	Purchases Medicines, Chemicals etc.	58,25,51,348.50	53,16,35,853.00		Investigation Fees	49,45,47,136.57	43,66,91,289.61
В	Salaries and Allowances	62,96,89,568.00	55,67,29,230.50		Medicine Receipts	57,26,83,335.34	50,02,59,446.49
	Uniform and Liveries	6,41,018.00	7,52,105.00		Interest Income	1,12,86,131.00	74,28,848.52
υ	Rent, Rates & Taxes	2,81,112.84	11,80,604.00	\mathbf{x}	Training Fees	2,01,10,429.00	2,13,14,970.00
	Postage, Telephone & Telegrame	5,45,234.50	4,23,126.00		Floor Rent Received	60,000.00	60,000.00
ш	Travelling Expenses	4,00,328.00	3,05,900.00		Interest on Radiotherapy Research Fund	45,979.00	16,015.00
	Printing & Stationery	26,95,152.00	29,91,708.00		Interest Accrued on Mobilization Advance - Blue Star	0.00	5,71,731.00
	Advertisement Charges	35,71,361.00	22,76,358.00		Photocopying Income	49,900.00	65,169.00
ш	Electricity and Water Charges	3,23,00,280.37	2,99,12,120.00		Miscellaneous Income	45,21,905.61	56,84,041.09
U	Repairs & Maintenance	2,11,61,430.00	2,37,71,764.45		Prior Period Income	34,91,862.90	50,44,761.00
Т	Service Contract Charges	2,65,83,834.10	1,81,42,090.00		Closing Stock	9,54,37,194.94	10,69,02,581.00
	Statutory Audit Fees	1,75,000.00	1,50,000.00		Excess of Expenditure over Income	5,88,12,184.93	3,24,56,106.60
	Internal Audit Fees	1,75,000.00	1,67,500.00				
_	Computer Expenses	6,72,676.00	19,78,470.00				
	Books & Periodicals	14,067.00	13,012.50				
	Bank Charges	0.00	47,357.60				
	Expenses to NTR	47,52,307.00	49,79,228.00				
	Prior Period Expenses	1,96,84,802.59	30,49,249.50				
	Medicine issues (free)	1,15,727.50	9,37,400.05				
_	Miscellaneous Expenses	1,01,09,904.32	85,34,844.27				
	Depreciation	12,45,63,326.56	12,84,72,657.44				
	TOTAL	1,56,75,86,059.29	1,38,28,94,959.31		TOTAL	1,56,75,86,059.29	1,38,28,94,959.31
\geq	SIGNIFICANT ACCOUNTING POLICIÉS	ES			-		

SIGNIFICAN LACCOUNTING FULLICIES

NOTES ON ACCOUNTS ≳ ≳

Schedules A to L,VIII, XV and XVI form an integral part of this Statement.

Thiruvananthapuram

18th January 2017

DR. PAUL SEBASTIAN (Director)

(Controller of Finance) **R.** SANJEEV

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

			Gross Block				Depreciation		Net Block	lock
ITEM	Cost on 1.4.14	Additions	Deduction	Cost on	Rate of	Up to 31.3.14	Additions	Total upto	As on	As on
				31.3.2015	Depreciation	-		31.3.2015	31.3.2015	31.3.2014
LAND	1,000.00	0.00		1,000.00	1	00.00	000	00:0	1,000.00	1,000.00
BUILDINGS	23,95,30,683.57	1,15,47,002.00		25,10,77,685.57	%01	11,13,52,403.73	1,39,72,528.18	12,53,24,931.91	12,57,52,753.66	12,81,78,279.84
CIVIL WORKS	3,09,140.63	0.00		3,09,140.63	%01	1,36,950.62	17,219.00	1,54,169.62	1,54,971.01	1,72,190.01
COBALT UNIT	1,81,23,455.30	0.00		1,81,23,455.30	15%	1,59,46,628.32	3,26,524.05	1,62,73,152.36	18,50,302.94	21,76,826.98
WATER SUPPLY AND DRAINAGE	65,63,373.43	0.00		65,63,373.43	15%	39,59,088.37	3,90,642.76	43,49,731.13	22,13,642.30	26,04,285.06
FURNITURE AND FITTINGS	2,67,94,231.48	23,52,434.00		2,91,46,665.48	%01	1,38,64,102.04	15,28,256.34	1,53,92,358.38	1,37,54,307.10	1,29,30,129.44
OFFICE EQUIPMENTS	27,18,018.43	00.00		27,18,018.43	15%	24,69,934.98	37,212.52	25,07,147.50	2,10,870.93	2,48,083.45
HOSPITAL & LAB. EQUIPMENTS	93,39,49,199.97	8,75,55,031.00		1,02,15,04,230.97	15%	5% 51,95,47,844.96	7,52,93,457.90	59,48,41,302.86	42,66,62,928.11	41,44,01,355.01
ELECTRICAL INSTALLATION	7,69,21,311.90	21,75,817.00		7,90,97,128.90	15%	4,64,58,432.63	48,95,804.44	5,13,54,237.07	2,77,42,891.83	3,04,62,879.27
FIRE DETECTION	46,28,400.00	00.00		46,28,400.00	15%	40,22,601.05	90,869.84	41,13,470.89	5,14,929.11	6,05,798.95
AIR CONDITIONING	4,51,27,357.35	14,00,773.00		4,65,28,130.35	15%	2,54,08,592.15	31,67,930.73	2,85,76,522.88	1,79,51,607.47	1,97,18,765.20
COMPUTER HARDWARE & SOFTWARE	3,41,75,279.00	93,64,245.00		4,35,39,524.00	%09	2,52,71,431.16	1,09,60,855.70	3,62,32,286.86	73,07,237.14	89,03,847.84
GAS AND CYLINDER	84,33,019.05	19,51,513.00		1,03,84,532.05	15%	70,93,224.49	4,93,696.13	75,86,920.62	27,97,611.43	13,39,794.56
VEHICLES	30,61,675.60	00.00		30,61,675.60	15%	15,77,910.74	2,22,564.73	18,00,475.47	12,61,200.13	14,83,764.86
LIBRARY BOOKS AND JOURNALS	6,03,19,560.65	94,69,258.00		6,97,88,818.65	15%	3,45,25,042.87	52,89,566.37	3,98,14,609.24	2,99,74,209.41	2,57,94,517.78
LIFT AND ELEVATOR	1,22,72,108.00	8,16,463.00		1,30,88,571.00	15%	73,60,940.14	8,59,144.63	82,20,084.77	48,68,486.23	49,11,167.86
ASSETS (DONATIONS)	3,70,112.00			3,70,112.00	15%	3,39,591.68	4,578.05	3,44,169.73	25,942.27	30,520.32
TELEPHONE EQUIPMENTS	46,31,573.00	13,91,674.00		60,23,247.00	15%	38,31,476.06	3,28,765.64	41,60,241.70	18,63,005.30	8,00,096.94
HIGH ENERGY LINEAR ACCELERATOR	5,29,87,763.00	00.00		5,29,87,763.00	15%	4,25,55,828.61	15,64,790.16	4,41,20,618.77	88,67,144.23	1,04,31,934.39
ASSETS-TELEMEDICINES PROJECT	77,18,623.00	00.00		77,18,623.00	15%	63,85,676.97	1,99,941.90	65,85,618.87	11,33,004.13	13,32,946.03
HOSPITAL EQUIPMENTS &	6,35,33,181.00	9,91,890.00		6,45,25,071.00	15%	3,09,02,356.55	50,43,407.17	3,59,45,763.71	2,85,79,307.29	3,26,30,824.45
OTHER ASSETS (PROJECT)										
LOW ENERGY LINEAR ACCELERATOR	36,11,489.40	00.00		36,11,489.40	15%	24,53,728.65	1,73,664.11	26,27,392.76	9,84,096.64	11,57,760.75
work in progress										
OFFICE EQUIPMENTS - WIP	00'0	12,07,024.00		12,07,024.00		00.00	0.00	00.00	12,07,024.00	00:0
ELECTRICAL INSTALLATION - WIP	16,48,581.00	1,00,85,462.00		1,17,34,043.00		2,47,287.15	000	2,47,287.15	1,14,86,755.85	14,01,293.85
FIRE DETECTION - WIP	25,25,667.00	30,82,914.00		56,08,581.00		3,78,850.05	00.00	3,78,850.05	52,29,730.95	21,46,816.95
AIR CONDITIONING - WIP	76,18,638.00	97,12,431.00		1,73,31,069.00		11,42,795.70	0.00	11,42,795.70	1,61,88,273.30	64,75,842.30
LIFT AND ELEVATOR - WIP	39,37,900.00	85,83,500.00		1,25,21,400.00		5,90,685.00	0.00	5,90,685.00	1,19,30,715.00	33,47,215.00
BUILIDINGS WORK IN PROGRESS	13,42,21,958.00	6,43,13,000.00		19,85,34,958.00		0.00	0:00	0.00		13,42,21,958.00
TOTAL	1,75,57,33,299.76	22,60,00,431.00	0.00	1,98,17,33,730.76		90,78,23,404.66	90,78,23,404.66 12,48,61,420.36	1,03,26,84,825.02	94,90,48,905.74	84,79,09,895.10

Thiruvananthapuram

18th January 2017 DR. PAUL SEBASTIAN (Director)

R. SANJEEV (Controller of Finance)

For K. Abraham Mathew & Co. Chartered Accountants

As per my report of even date attached

Chartered Accountants FRN 01 10005 K. Abraham Mathew F.C.A. Membership No.: 26195

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg. no. 567/81) CANCER CARE FOR LIFE SCHEME INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2015

Expenditure	Current Year (Rs.)	Previous Year (Rs.)	Income	Current Year (Rs.)	Previous Year (Rs.)
Reimbursement to Patients	1,31,18,474.00	1,13,55,326.08	Interest on FD & Investments	1,55,79,903.00	1,10,77,111.00
Excess of Income over	24,61,429.00	-	Excess of Expenditure over		2,78,215.08
Expenditure			Income		
TOTAL	1,55,79,903.00	1,13,55,326.08	TOTAL	1,55,79,903.00	1,13,55,326.08

Thiruvananthapuram 18th January 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, 2015 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 31.03.2015 for Investigation Fees Receivable only partial receipt of confirmation with regard to 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, 2015; and

(ii) in the case of the Income and Expenditure Account of the deficit 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, Note 4 on untallied trial balance submitted for audit and Note 7 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 18.01.2017

SCHEDULE – XV SIGNIFICANT ACCOUNTING POLICIES

I. 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. I 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 is 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, and the value of assets received from the projects at free of cost.

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

18th January 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 registeration fees, ward charges, nuclear medicine, radiotherapy, surgery and lab.
- 3. Salary Payable Account shows a credit balance of Rs.3,04,28,635.20/- as on 31.03.2015. This account is operated for accounting monthly salary dues and its payment. This account has not been reconciled as on 31.03.2015.
- 4. An untallied trial balance generated by OFA was submitted for audit. It showed a difference of Rs 96,766/- Cr. The accounts of RCC were finalized on the basis of a tallied trial balance produced by the management after entries were passed manually.
- 5. There is no surplus or profit during the year, according to the society, which is chargeable to income-tax.
- 6. 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.
- 7. The balance in Grant in Aid from Government of Kerala account, includes grant received under Plan Fund of Rs 56,71,42,586/- and similarly Grant-in-Aid from Government of India of Rs.4,80,00,000/- represent the unutilized amount of Grant received under Plan from the Central Government.
- 8. Figures for the previous year have been regrouped and recast wherever necessary to suit the current year lay-out.

Thiruvananthapuram 18th January 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

TO WHOMSOEVER IT MAY CONCERN

 During the year 2014-15, The Regional Cancer Centre Society, Thiruvananthapuram has received Rs. 2,000 lakhs under the head of account 2210-05-800-89-35-RCC-Grant in Aid (P), Rs. 455.40 lakhs under the head of account 2210-05-800-89-36 Grant in Aid- Non-Salary (NP) and Rs. 2,610 lakhs under the head of account 2210-05-800-89-31 (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)
А	Head of Account- 2210-05-105-52-35-RCC- Grant in Aid (P)	
I	G.O .(Rt) No 4031/2014/H & FWD dated 19/12/2014	2,000.00
	Total	2,000.00
В	Head of Account- 2210-05-105-52-36 (NP)- Grant in Aid- Non Salary	
I	G.O. (Rt) No 2227/2014/H & FWD dated 02/07/2014	100.00
2	G.O.(Rt) No 2976/2014/H & FWD dated 30/08/2014	200.00
3	G.O. (Rt) No 3922/2014/H & FWD dated 06/12/2014	155.40
	Total	455.40
С	Head of Account- 2210-05-105-52-31(NP)- Grant in Aid- Salary	
I	G.O. (Rt) No 2227/2014/H & FWD dated 02/07/2014	300.00
2	G.O. (Rt) No 2976/2014/H & FWD dated 30/08/2014	600.00
3	G.O. (Rt) No 3922/2014/H & FWD dated 06/12/2014	700.00
4	G.O.(Rt) No 542/15/H & FWD dated 06/02/2015	1,010.00
	Total	2,610.00
	Grand Total (A+B+C)	5,065.40

2. The amount was used during the year 2014-15 for the following purposes:

SI. No.	Purpose	Amount (Rs. in lakhs)
Ι.	Acquisition of Assets	2,000.00
2.	Operational expenditure including salary	3,065.40
	Total	5,065.40

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

Thiruvananthapuram 18th January 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

T.AJITH KUMAR B.Com, FCA CHARTERED ACCOUNTANT

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

AUDITOR'S REPORT

I have audited the accounts of the Foreign Contribution for Research Projects of the Regional Cancer Centre Society, registered as per T.C Literary Scientific and Charitable Societies Regulation Act XII of 1955 (Reg.No.567/81) with registered office at Medical College P.O, Thiruvananthapuram-695011, Kerala State for the year ended 31st March 2015 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 2014-2015 was Rs.4,15,32,484.44
- 2. Foreign Contribution worth Rs.1,15,89,463.95 was received by the Association during the year ended 31st March,2015.
- 3. The balance in foreign contribution account together with interest earned thereon at the end of the financial year 2014-2015 was Rs.4,53,10,487.39
- 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 2015

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg. No.567/81) Foreign contribution for Research Projects Balance Sheet as at 31st March 2015

LIABILITIES	Amt (Rs. Ps.)	Amt (Rs. Ps.)	ASSETS	Amt (Rs. Ps.)
CAPITAL FUND			FIXED ASSETS	
			Computer	2183574.00
Capital Fund Account Balance		11103017.84	Printer & UPS	271010.00
			Fax Machine	51359.00
			Refrigerator	11953.00
			Deep Freezer	123674.00
Project Balances as Per Schedule		18570092.83	Vehicle	2380744.00
			FAN	3687.00
			Furniture	668672.29
Research Funds as per Schedule		26740394.56	Equipments	4076541.00
			Air Conditioner	223239.00
			Photocopier	322735.00
			Building Addl. Facilitites	785829.55
CURRENT LIABILITIES			INVESTMENTS	
Salary Recovery		34,389.00	Term Deposit with Syndicate Bank	250000.00
, ,			Term Deposit with S.B.T	32328778.00
Payable to Res: Project a\c		353499.00	Term Deposit with Fed.Bank	2484341.00
			Term Deposit with PNB	1517672.00
Other Current Liabilities		l ,55,000.00		
			CURRENT ASSETS &	
			LOANS AND ADVANCES	
			Cash in Hand	31716.00
			Cash at Bank	4363910.39
			Interest Accrued but not due	2589958.00
			Imprest	7000.00
			Rent Deposits	30000.00
TOTAL		56956393.23	TOTAL	56956393.23

Vide my report of even date attached.

Thiruvananthapuram 19th November 2015 Finance Manager (Projects) DIRECTOR

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 2015

RECEIPTS	Amt (Rs)	PAYMENTS	Amt (Rs)
To Opening Balance:-		By Project Expenses:-	
Cash in Hand	79893.00	" Revenue Expenses paid	11375689.00
Cash at Bank	3485334.44		
		" Capital Expenses paid	80450.00
Foreign Receipts for various Projects	11589463.95		
(As per Schedule attached)		Other expenses paid	55600.00
Recovery from Salary	271584.00	Salary Recovery Account	272141.00
Other Advance Recovered	63500.00	Other Advances paid	63500.00
Donation received for RCC	0.00	Paid to Research Projects	387028.00
Interest Received	1140259.00	TDS paid	40338.00
TDS deducted	40338.00		
		To Closing Balance:-	
		Cash in Hand	31716.00
		Cash at Bank	4363910.39
TOTAL	16670372.39	TOTAL	16670372.39

Vide my report of even date attached.

Thiruvananthapuram 19th November 2015 Finance Manager (Projects) DIRECTOR

T. AJITH KUMAR B.Com, FCA CHARTERED ACCOUNTANT

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

AUDITOR'S REPORT

- I have audited the Balance Sheet of the Project Cell (Financial Assistance received from National Agencies for Research Projects) of Regional Cancer Centre, Thiruvananthapuram as at 31st March 2015 and the Income and Expenditure Account together with the Schedules thereon for the year ended on that date.
- 2. Subject to :-

(a)Tax deducted from the receipts are accounted as per the position of 26AS available as on the date of Audit and

(b)The Confirmation of the different Project & Training Account Balances

- 3. I have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
- 4 In our opinion proper books of accounts have been maintained by the Division of Project Cell of Regional Cancer Centre.
- 5. The Balance Sheet and the Income and Expenditure account dealt with by this report are in agreement with the books of accounts maintained and as checked by me.

Thiruvananthapuram 19th November 2015

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 2015

Liabilities	Amt	Amt	Assets	Amt	Amt
	(Rs. Ps.)	(Rs. Ps.)		(Rs. Ps.)	(Rs. Ps.)
Capital Fund		9963577.62			
			Fixed Assets:- Sch-2		128062.62
R&D Fund - Schedule-6		60240188.66			
			Foreign Contribution		
			Receivable Account		353499.00
Training Fund (Schedule-7)		15909798.75	TERM DEPOSITS :		
			Syndicate Bank	1310323.89	
Internal Projects Balances		1760475.00	Union Bank of India	3 3 25.00	
(Schedule-8)			SBT	86808856.00	
Current Liabilities			Punjab Nat. Bank	5971742.00	95404046.89
Security Deposits	163752.00				
Project Balances as per Sch-I	47061489.47	47225241.47	Cash in Hand - Sch-3		11268.00
			Cash at Bank - Sch-4		29163362.26
EPF Recovery		30093.00	Other Current Assets-Sch	-5	10069135.73
TOTAL		35 29374.50	TOTAL		35 29374.50

Vide my report of even date attached

Thiruvananthapuram 19th November 2015 Finance Manager (Projects) DIRECTOR

PROJECT CELL REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (REG. No. 567/81) Income and Expenditure Account for the year ended on 31st March 2015

Expenditure	Amt	Income	Amt
	(Rs. Ps.)		(Rs. Ps.)
Salary Paid	429736.00	Income from Projects	2050793.20
Travelling Expenses	1807.00	Interest received	12767570.00
Audit Fee	58800.00		
Printing & Stationery	1800.00		
Computer Stationery	630.00		
Postage Expenses	268.00		
Other Miscellaneous Expenses	7200.00		
Depreciation	15980.53		
Excess of Income Over Expenditure	14302141.67		
TOTAL	14818363.20	TOTAL	14818363.20

Vide my report of even date attached

Thiruvananthapuram 19th November 2015 Finance Manager (Projects)

DIRECTOR

REGIONAL CANCER CENTRE SOCIETY, PERIPHERAL CENTRE OF RCC AT NEENDAKARA Income and Expenditure Account for the year ended on 31st March 2015

Expenditure	Amount (Rs. Ps.)	Income	Amount (Rs.Ps.)
Salary	1770927.00	Grant-in-Aid received	1000000.00
		(G.O Rt.No.2954/2014/H&FWD, Dt.28/08/2014)	
Medicines	1199735.00	Grant-in-Aid received	2200000.00
		(G.O Rt.No.720/2015/H&FWD, Dt.25/02/2015)	
Consumables	27591.00	Excess expenditure advanced by RCC	3355.00
Travel Expenses	50992.00		
Contingencies	76300.00		
Medical Camp	77810.00		
TOTAL	3203355.00	TOTAL	3203355.00

Thiruvananthapuram 19th June, 2015 Finance Manager (Projects) DIRECTOR

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

SI.No.	Letter No. & date	Amount. (Rs.in lakhs)
I	Grant-in-Aid received (Rt.No.2954/2014/H&FWD, Dt.28/08/2014)	10.00
2	Grant-in-Aid received (Rt.No.720/2015/H&FWD, Dt.25/02/2015)	22.00
	Total	32.00

Certified that out of Rs. 32,00,000/- of grants-in-aid sanctioned for the peripheral Centre at Neendakara, Kollam District, Regional Cancer Centre during the year 2014-15, a sum of Rs. 32,03,355/- 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 19th June 2015 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, Genera, 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





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