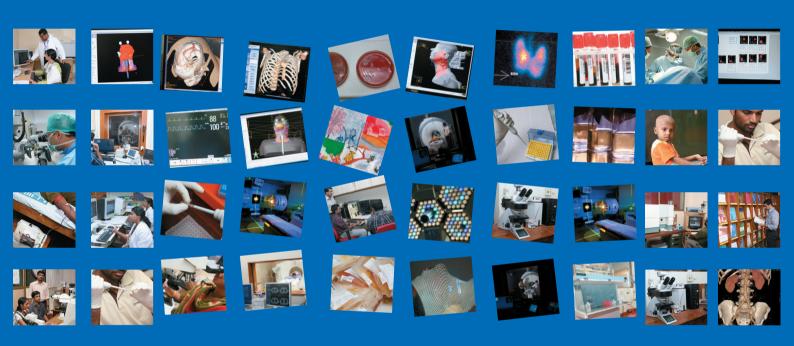
## REGIONAL CANCER CENTRE THIRUVANANTHAPURAM

29 Years Of Crusading Against Cancer



Annual Report 2009-2010





#### Towards a cancer-free tomorrow

Leadership in cancer treatment and research is not a matter of chance. It is a matter of continued excellence.

#### MANDATES

- Evolve comprehensive cancer control programmes for the region.
- Offer state-of-the-art facilities for diagnosis, treatment, palliation & rehabilitation of cancer patients.
- Undertake basic, translational and clinical research and disseminate the knowledge.
- Generate trained manpower for the region in various specialities of oncology medical, para-medical and non-medical.
- Organise cancer registries on modern lines.
- Work in collaboration with other medical institutions, health service departments, universities, aid agencies and other institutes of repute.

## ANNUAL REPORT 2009-2010



THIRUVANANTHAPURAM - 695011, KERALA, INDIA.

#### **REGIONAL CANCER CENTRE**

Thiruvananthapuram - 695 011, Kerala, India.

 Telephone
 :
 +91 471 2442541

 Director (Dir)
 :
 +91 471 2443128

 Fax
 :
 +91 471 2447454

 E-mail
 :
 webmaster@rcctvm.org

 Website
 :
 www.rcctvm.org

Published by

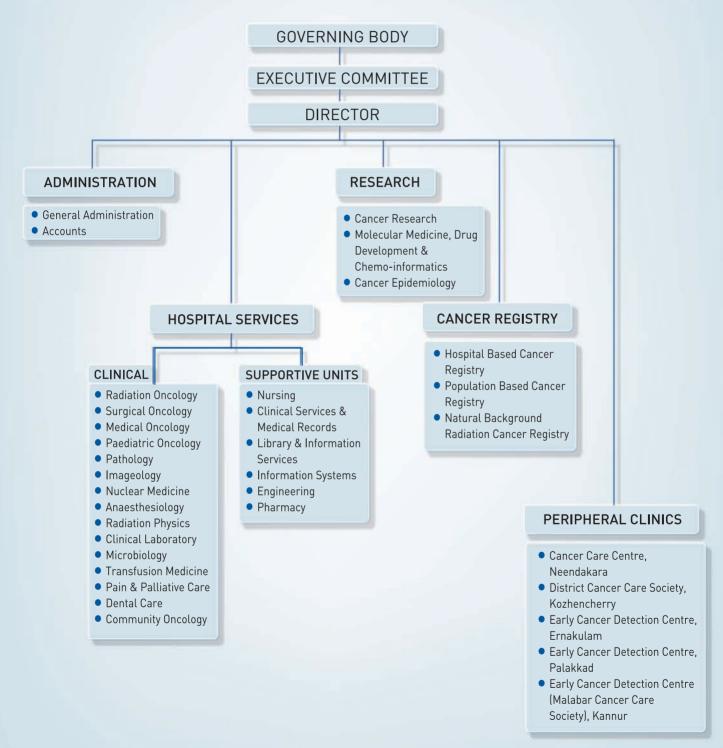
Director, Regional Cancer Centre, Thiruvananthapuram

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## **ORGANOGRAMME**



## **GOVERNING BODY**

1.	Sri. V.S. Achuthanandan Hon'ble Chief Minister of Kerala	Chairman
2.	Smt. P.K. Sreemathy Teacher Hon'ble Minister for Health & Social Welfare, Govt. of Kerala	Vice-Chairman
3.	Dr. Vishwas Mehta, IAS (Till 30.06.2009) Secretary to Government Health & Family Welfare Department, Govt. of Kerala	Alt. Vice-Chairman
4.	Dr. Usha Titus, IAS (From 01.07.2009) Secretary to Government, Health & Social Welfare Department Govt. of Kerala	Alt. Vice-Chairman
5.	Dr.L.C. Goyal, IAS (Till 04.10.2009) Principal Secretary to Government, Finance Department, Govt. of Kerala	Member
6.	Dr.P. Prabhakaran, IAS (From 05.10.2009) Additional Chief Secretary (Finance), Govt. of Kerala	Member
7.	Dr.Teeka Ram Meena, IAS Secretary to Government, Planning Department, Govt. of Kerala	Member
8.	Dr.K. Mohandas (Till 31.07.2009) Director, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram	Member
9.	Dr.K. Radhakrishnan (From 01.08.2009) Director, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram	Member
10.	Dr. R.K. Srivastava Director General of Health Services Ministry of Health and Family Welfare, Govt. of India	Member
11.	Sri. Naresh Dayal (Till 30.09.2009) Secretary to Government, Ministry of Health and Family Welfare Govt. of India	Member
12.	Smt. K. Sujatha Rao (From 01.10.2009) Secretary to Government, Ministry of Health and Family Welfare Govt. of India	Member
13.	Dr.S.C. Gupta 'Vidya', Pulayanarkotta Road, Thiruvananthapuram	Member
14.	Dr.V. Geetha Director of Medical Education, Thiruvananthapuram	Member
15.	Dr.Ramdas Pisharody Principal, Medical College, Thiruvananthapuram	Member
16.	Dr.K.Ramachandran (Till 23.08.2009) Director-in-Charge, Regional Cancer Centre	Convener
17.	Dr. Paul Sebastian (From 24.08.2009) Director, Regional Cancer Centre	Convener

## EXECUTIVE COMMITTEE

1.	Dr. Vishwas Mehta, IAS (Till 30.06.2009) Secretary to Government, Health & Family Welfare Department Govt. of Kerala	Chairman
2.	Dr. Usha Titus, IAS (From 01.07.2009) Secretary to Government, Health & Social Welfare Department Govt. of Kerala	Chairman
3.	Dr. L.C. Goyal, IAS (Till 04.10.2009) Principal Secretary to Government, Finance Department, Govt. of Kerala	Member
4.	Dr. P. Prabhakaran, IAS (From 05.10.2009) Additional Chief Secretary (Finance), Govt. of Kerala	Member
5.	Dr.Teeka Ram Meena, IAS Secretary to Government, Planning Department, Govt. of Kerala	Member
6.	Dr. V. Geetha Director of Medical Education, Thiruvananthapuram	Member
7.	Dr. Ramdas Pisharody Principal, Medical College, Thiruvananthapuram	Member
8.	Dr. K. Ramachandran (Till 23.08.2009) Director-in-Charge, Regional Cancer Centre	Convener
9.	Dr. Paul Sebastian (From 24.08.2009) Director, Regional Cancer Centre	Convener

## **DIRECTOR'S REVIEW**



The Regional Cancer Centre, Thiruvananthapuram (RCC), now in its 29th year of service is an autonomous scientific institution sponsored jointly by the Government of Kerala and the Government of India receiving financial assistance from both. The Centre was established as per Govt. of India letter No. T. 200125/79 of October 1980 as one among 6 such centres in India. The State Government transferred a few departments of Medical College, Thiruvananthapuram, which were primarily concerned with cancer care to RCC. The Centre was registered under Travancore Cochin Literary Scientific and Charitable Societies Registration Act 1955 vide No. 567/81 dated 19.08.1981. It has been designated as a Science and Technology Centre in health sector by State Government as per G. O. (Rt) No. 1521/85/11 H & FWD dated 18.11.1985.

From a modest beginning, RCC has evolved into an internationally acclaimed Centre for cancer treatment and research and caters to the population

of the state of Kerala and adjoining parts of Tamil Nadu. Every year, the Centre attends to more than one third of the registered cancer cases in the State. In the report period, we registered a number of 13,040 new cases and provided follow-up services to about 1,68,000 patients. In spite of acute constraints of both space and manpower, we have been providing world-class state-of-the-art facilities for cancer prevention, diagnosis, treatment, rehabilitation and palliation.

The period witnessed major boost in expansion plans, with the commencement of construction work for a new ten-storeyed block, a project fully funded by Government of Kerala. The foundation stone for this 22 crore project was laid by Hon'ble Chief Minister of Kerala and Chairman of the Governing Body of RCC, Sri. V. S. Achuthanandan on 2nd March 2010 in a function presided over by Hon'ble Minister for Health and Social Welfare, Smt. P. K. Sreemathy Teacher. Once commissioned, it would provide

### DIRECTOR'S REVIEW

additional space of 1,35,000 sq. ft. to accommodate pay/general wards, intensive care units, OP clinics, research labs, library facility, conference and lecture halls and space for setting up the much needed PET scanning facility.

The Centre continued to build state-of-the-art infrastructure and other basic amenities. A new Blood Irradiator machine costing Rs. 25,00,000 aimed at minimizing transfusion reactions in bone marrow transplant patients was a notable addition. To tackle the long standing water scarcity problem, an underground water storage facility of 15 lakhs litres capacity was also commissioned during the report period. Installation and standardisation of the new radiotherapy machines with facilities for Image Guided Radiation Therapy and Stereotactic radiosurgery are also progressing.

RCC spent around 11 crores for providing subsidized treatment to poor patients. We have been delivering medicines at 20-30 % less than MRP. In addition to this, free treatments were provided to tribal people, BPL families and children less than 18 years of age through different schemes such as 'Tribal Project', 'Cancer Suraksha Mission', 'Rashtriya Suraksha Scheme' and 'Thalolam'.

Instead of focussing on to institution based cancer control measures, we planned to adopt new strategies in prevention, early detection, comprehensive and modern management, research, training and welfare measures in our new action plan. We conducted several campaigns for the promotion of our 'Cancer Care for Life' (CCL) scheme in different parts of the State and abroad including Middle-East countries during the period.

Membership to this scheme has crossed 3 lakh members during the report period.

In our effort towards community based cancer

control activities, we conducted a number of 152 cancer detection camps and 91 cancer awareness programmes. Taking the cue from the fruitful Trivandrum Oral Cancer Screening Programme (TOCS) results, we have taken up another innovative project offering a package of intervention consisting of creating breast awareness, teaching breast self examination and offering clinical breast examination to identify palpable lumps in early stages and subsequent investigations and treatment as a cost effective strategy suitable in a low resource setting. Population based mammographic screening is not a feasible option for developing countries. This study being funded by WHO-International Agency for Research on Cancer (WHO-IARC, France), is recruiting around 1,20,000 people from 17 panchayats in Thiruvananthapuram district.

Our collaborative approaches were further strengthened this period too. With National Cancer Centre (NCC), Singapore, the Centre planned to conduct a large scale clinical trial on advanced head and neck cancers and with National Rural Health Mission (NRHM), the Centre was actively involved in District panchayat's 'Santhwanam' palliative care project. 'Onconet', the telemedicine platform of RCC, was linked to 'Sanjeevani', a mobile telemedicine initiative by C-DAC, Government of India. Plans were also mooted to spread teleclinic initiatives to deliver palliative care services to remote areas. RCC found a place among the terms of reference in the proposed twin city tie-up plan between Barcelona (Spain) and Thiruvananthapuram.

The period under report witnessed a series of seminars and workshops. Free special clinics of one month duration were conducted in October 2009 as part of Breast Cancer Awareness month and a CME on breast cancers was also organised on the World

## DIRECTOR'S REVIEW

Breast Cancer Day (18 October 2009). A two-day India-Singapore International Conference on Head & Neck Cancers was held on 22-23 January 2010, in which experts from National Cancer Centre, Singapore and other major centres across the country participated. Live workshops on head & neck surgery and Intensity Modulated Radiation Therapy treatments were part of this programme. A workshop on 'Tobacco control measures' on World No-Tobacco Day, public interactive sessions on World Palliative Care Day, a CME on Medical Record Science, one day seminar on Oral Precancers and Cancers on National Cancer Day and another programme on cancer awareness on World Cancer Day were the other major programmes organized during the period.

On the academic front, our DNB programes in various specialities produced excellent results. In addition to the two year Fellowship training in Head and Neck Oncosurgery and one year Post-doctoral certificate course in Oncopathology, training programmes are also going on for Cytotechnologists and Cytotechnicians. Above all, over 500 students in life sciences and postgraduate medical courses from different institutions all over the country underwent training in RCC as part of their course curriculum.

Our clinicians and researchers got accolades at many scientific forums. Two of our research scholars bagged Young Scientist Award at the 22<sup>nd</sup> Kerala Science Congress 2010 and one received Shri. K.N. Narasimhaiah Award for best original paper in cancer biology. Our clinicians were awarded with Fellowships of the International Union Against Cancer (UICC-ICRETT), National Cancer Institute, USA, and other national level fellowships. A number of 62 journal articles, 24 conference papers and 5 chapters in books

have come out as research output of the Centre. Out of 62 articles, 57 were appeared in indexed journals. 74 presentations were delivered in national and international meetings. Seven research scholars were awarded PhD during the report period.

Some prominent dignitaries including the renowned police officer and Magsaysay award winner Dr. Kiran Bedi, Dr. Richard Love, Director of Breast Cancer Research Foundation and Dr. Joe Joseph, Consultant Haematologist, Dancaster Royal Infirmary, UK have visited our Centre during the report period.

On philanthropy, the multi-pronged strategies of RCC based on voluntary organizations like Asraya, Care Plus and Prathyasa were unrelenting. Services were also rendered by a handful of people in the society, comprising playback singers and notable figures in the community. In a gesture towards social commitment, we offered job to children attached to Special and Juvenile Homes under Social Welfare department of Kerala.

I have taken charge as Director of the Centre on 24th August 2009 and I am very pleased to present the annual report, which contains the activities of various Divisions, Clinics and Peripheral Cenres of RCC for the period 2009-2010.

Dr. K. Ramachandran Director-in-charge (Till 23.08.2009)

Dr. Paul Sebastian Director



## RADIATION ONCOLOGY



#### Jayaprakash P.G.

Professor & Head

Parameswaran S.

Jayaprakash Madhavan

Ramadas K.

Ratheesan K.

Francis V. James

Beela Sarah Mathew

Thomas Koilparambil

Aswin Kumar

Sivanandan C.D.

Rejnish Kumar R.

Susan Mathews

Asha Arjunan

Sajeed A.

Kainikkal C.T.

Roshni S.

Arun Sankar

Lakshmi Balakrishnan

Naveen B.

Professor

Additional Professor (On leave)

Additional Professor

Additional Professor

Additional Professor

Additional Froncisco

Additional Professor

Associate Professor

Associate Professor

Associate Professor

Associate Professor

Assistant Professor

Assistant Professor

Assistant Professor

Assistant Professor

Lecturer

Lecturer

Lecturer

Lecturer

### RADIATION ONCOLOGY

The division primarily takes care of the solid tumour malignancies registered at the Centre. A total of 9,688 new patients and 1,00,448 review patients were seen during the reporting period in the various multispeciality clinics. The division houses one 4 slice CT simulator and a conventional (Nucletron -Evolution) simulator for radiotherapy treatment planning and an Arcadis 'C' arm unit for brachytherapy treatment simulation. Also housed are one LDR and HDR remote afterloading brachytherapy units. During the report period, the division has acquired one Clinac 600 C and Clinac IX radiotherapy machines from Varian medical systems. The Centre is on the way to offer state-of-the-art techniques in radiotherapy like IGRT, frameless head and body SRT in addition to the already existing 3D CRT and IMRT.

Various multicentric clinical research projects, sponsored by international pharmaceutical firms have been progressing in addition to in-house basic research programs. These research programmes enabled patients to have access to the latest developments in oncology.

#### **ACADEMIC ACTIVITIES**

DNB programme in Radiotherapy and Oncology with an annual intake of 4 students has been continuing successfully. The division conducted 2 afternoon clinics and 1 morning clinic in addition to various academic sessions every week. Tumour boards were conducted regularly with participation of Gynaecologists, Urologists, Chest Physicians, Thoracic Surgeons, Surgical Gastroenterologists, and ENT Surgeons from Medical College Hospital, Thiruvananthapuram.

#### **Ongoing Doctoral programme**

Research Scholar

Dr. Aswin Kumar

#### Title of Study/University

Quality of life of cervical cancer patients undergoing radical radiotherapy/ University of Tampere, Finland.

#### Guide

Prof. Ansi Auvinen



## SURGICAL ONCOLOGY

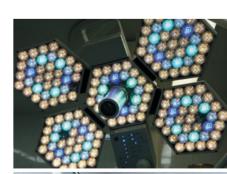


#### **Paul Sebastian**

Professor and Head & Director Jem Prabhakar

Iqbal Ahamed M.
Jem Prabhakar
Shaji Thomas
Bipin T. Varghese
Paul Augustine
Chandramohan K.
Elizabeth Mathew Iype
Balagopal P.G.
Kurien Cherian
Rema P.
Madhu Muralee
Arun Peter Mathew
Suchetha S.

Additional Professor
Additional Professor
Additional Professor
Additional Professor
Associate Professor
Associate Professor
Associate Professor
Associate Professor
Associate Professor
Assistant Professor
Assistant Professor
Assistant Professor
Assistant Professor
Assistant Professor





## SURGICAL ONCOLOGY

The Division continued to work in tandem with other divisions for providing the best multidisciplinary care. The audit showed an increase in the number of major surgeries carried out in the division. On the academic front, the division played a major role in organizing the India-Singapore International Conference on Head & Neck Cancer (22-23 January 2010) and the Pink Day CME on 'Breast Cancer Awareness Day' (18 October 2009). The number of trainees and observers coming to the Division has increased considerably and today the post graduate trainees of all government and private Medical Colleges in this part of the country are making use of the facilities of the Division.

#### **SURGICAL AND ENDOSCOPIC PROCEDURES**

A number of 5135 surgical procedures and 503 endoscopic procedures were done during the period under report.

**TABLE 1: Major Procedures** 

Tribal In Thajor Troccaures	
Procedure	No.
Oral	779
Laryngopharyngeal	32
Sinonasal	58
Thyroid	256
Parotid	32
Breast	1183
Sarcoma	109
Urological	61
Gynaecological	306
Upper GIT	182
Colorectal	247
Paediatric	78
Miscellaneous	55
Total	3378

#### **TABLE 2: Minor Procedures**

Procedure	No.	
Minor Cases	1452	
D & C	113	
LEEP	55	
Cystoscopy	137	
Total	1757	

#### **TABLE 3: Endoscopic Procedures**

Procedure	No.	
Colonoscopy	441	
Bronchoscopy	6	
Oesophagoscopy	23	
Nasopharyngoscopy	33	
Total	503	

#### **ACADEMIC ACTIVITIES**

The DNB Surgical Oncology course continued to attract candidates from different parts of the country and the second batch has completed training. As part of the two year Fellowship training in Head and Neck Oncosurgery, third candidate has joined the course, which has become popular among aspiring head and neck surgeons. Dr. Arun Peter Mathew, qualified DNB examination in Surgical Oncology conducted by National Board of Examinations, New Delhi.



## MEDICAL ONCOLOGY



#### Geetha N

Additional Professor & Head

Sreeiith G. Nair Mirsa Hussain Prakash N.P. Santhosh Thyagu Shruti Prem Lali V.S.

Medical Oncology Division is responsible for the diagnosis and management of haematological and lymphoreticular malignancies, sarcomas and other solid tumours where intensive chemotherapy is indicated. The department conducted outpatient clinics 6 days a week. A number of 1,833 new cases were registered during the reporting period. The number of outpatient attendance was 25,560 of which 75% were given chemotherapy. Dose intense protocols were used for the treatment of all leukaemias and lymphomas. About 2,200 patients were admitted for the administration of high profile chemotherapy and management of emergencies and complications. A number of 200 new patients with CML were enrolled in the NOVA programme and were given Imatinib free of cost.

Additional Professor Associate Professor Associate Professor Assistant Professor (on Leave)

Lecturer

Resident Medical Officer

Allogenic bone marrow transplantation was started during the period and performed in one patient with acute myeloid leukemia. Autologous bone marrow transplantation following high dose chemotherapy was performed in 20 patients.

#### **TABLE 4: Patient Statistics**

Cases	No.
New	1833
Review	25560
Total	27393

#### **ACADEMIC ACTIVITIES**

Postgraduate students in Transfusion Medicine and Radiotherapy were given training in Medical Oncology. Staff nurses were given training in patient care.

## PAEDIATRIC ONCOLOGY



#### Kusumakumary P.

Additional Professor & Head

Priya Kumari T. Anu Ninan

The Division handles childhood malignancies up to the age of 14 years. A number of 609 new cases and 20,421 review cases were seen during the report period. Among the new cases reported, acute lymphoblastic leukaemia and brain tumour constituted the most common malignancies.

#### TABLE 5: Total Patients consulted

Cases	No	%
Acute lymphoblastic leukaemia	196	32.2
Acute myeloid leukaemia	45	7.4
Chronic myeloid leukaemia	8	1.3
Brain tumour	85	14
Primitive neuro ectodermal tumour	6	0.9
Osteosarcoma	24	4
Ewing's sarcoma	5	0.8
Soft tissue sarcoma	1	0.2
Hepatoblastoma	15	2.5

Additional Professor Lecturer

Rhabdomyosarcoma	16	2.6
Germ cell tumour	13	2.1
Sacrococcygeal teratoma	1	0.2
Hodgkin's lymphoma	17	2.8
Non-Hodgkin lymphoma	18	2.9
Neuroblastoma	24	4
Wilms' tumour	14	2.3
Clear cell Sarcoma kidney	1	0.2
Retinoblastoma	9	0.6
Carcinoma	4	0.6
Langerhans cell histiocytosis	12	2
Thyroid	7	1.1
Miscellaneous	36	5.9
Not yet diagnosed	18	2.9
Non malignant	34	5.6
Total number of new cases	609	100
Total number of review cases	20421	

### PAEDIATRIC ONCOLOGY



The regular running of the Division has been supported by a team of 2 doctors, 3 staff nurses, 1 data entry operator and 1 social worker working under the Indian Paediatric Oncology Initiative programme supported by the Jiv Daya Foundation for improving quality of paediatric oncology patient care.

#### **ACADEMIC ACTIVITIES**

The Division actively participated in the teaching and training programmes of DNB Radiotherapy students of the Centre and other Paediatrics students from

SAT Hospital, Kerala Institute of Medical Sciences, and CSI Medical College, Karakonam.

#### **CULTURAL ACTIVITIES AND VISITS**

Various cultural programmes were organised for children and their parents during festivals like Vishu, Onam, Christmas, etc. Eminent personalities like Smt. Kiran Bedi, IPS, Smt. K.S. Chithra, Sri. M.G. Sreekumar, Sri. G. Venugopal (play back singers), Sri. Sarath (music director) and Smt. Parvathy (cine artist) visited the Division and interacted with children and their parents. 'Sasneham', an Orkut Friends' group with common interest in arts and social work was inaugurated by Sri. G. Venugopal.

## **PATHOLOGY**



#### Jayasree K.

Additional Professor & Head

Rekha A. Nair Anitha Mathews Thara Somanathan Nileena Nayak Preethi T.R. Raveendran Pillai K. Sujathan K. Anita K.R. Renu S. Sindhu Nair P. Additional Professor
Additional Professor
Additional Professor
Associate Professor
Associate Professor
Associate Professor
Associate Professor
Lecturer
Lecturer
Resident Medical Officer

Pathology Division has been providing quality diagnosis for optimum patient management through its 3 sections – Surgical Pathology,
Haematopathology and Cytopathology. In addition to the routine diagnostic services, the Division provided ancillary / additional diagnostic services of immunohistochemistry, frozen section reporting, flow cytometry, FISH and molecular tests which are

at present available only in very few centres in the State. Division also provided expert opinions on referred tissue samples from various hospitals from all over the State. The Division was also actively involved in the community oriented cancer control programmes of the State, for early detection of uterine cervical, oral and breast cancers.

### **PATHOLOGY**

#### **DIAGNOSTIC SERVICES**

#### **Total Work Load at a Glance**

During the report period, a total of 37,767 pathology reports were generated, which include surgical pathology, cytopathology and haematopathology cases (TABLE 6). These included 10,874 special tests also (TABLE 7).

#### TABLE 6: Work load at a glance (Number of reports)

Surgical Pathology	Cytopathology	Haematopathology	Total		
13,653	17,781	6,333	37,767		
TABLE 7: Special/ Advanced tests					
Immunohistochemical staining	PCR(HPV)	FISH (Her2/neu&bcr-abl)	Flow cytometry		
(Surgical pathology +Haematopatholog	ıvl				

61

#### A. Surgical Pathology

Out of the 13,653 cases processed, 8,728 cases were surgical specimens of the Centre and 4,925 were review cases referred from other hospitals. It included 634 cases referred for second opinion.

Among this, malignancy was reported in 8,345 cases.

#### TABLE 8: Surgical pathology: malignant cases

10580

Site	No. of cases	
Breast	1803	
Oral cavity	1560	
Gastro-intestinal tract and hepatobiliary system 1011		
Bone marrow	576	
Lymph node	478	
Thyroid	418	
Male genito-urinary system	362	
Cervix	333	
Female genital system		
(Other than Cervix & Ovary)	248	
Soft tissue	210	
Ovary	202	
Central nervous system	198	

#### Skin 163 154 Larynx Lung 136 Bone 125 96 Respiratory system (other sites) Salivary gland 74 Mediastinum 49 Eye and orbit 42 Retroperitoneum 21 Endocrine organs (other than thyroid) 10 Other sites 76 Total 8345

227

06

### a. Immunohistochemistry & Frozen Section Reporting

Among the 10,486 immunohistochemical tests performed, 3,873 tests were done for assessing estrogen and progesterone receptor status. A total number of 529 cases of frozen sections were reported, based on which major surgical decisions were taken.

### **PATHOLOGY**

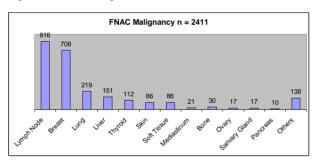
#### **B.** Cytopathology

The main samples examined for cytological abnormalities include, fine needle aspirations, cervical smears, body fluids and sputum.

#### a. Fine Needle Aspiration Cytology (FNAC)

A total number of 5,350 fine needle aspirations were performed and the major sites of aspiration were lymph node (1,325), breast (1,453) and thyroid (1,219). Out of the reported 2,411 cases of malignancies, majority were lymph nodes (816), of which 606 were metastatic tumours. (Fig. 1)

Fig. 1: FNAC - Malignancies - Site wise



#### b. Cervical Smear

Out of the 8,613 cervical smears examined, 616 cases were positive for intraepithelial lesions / malignancy. Second opinion on cervical smears were given to smears referred from peripheral centres (ECDCs).

#### c. Fluid Cytology

Out of the 2,498 effusions and other body fluid samples processed, malignancy was reported in 482 samples. Samples include pleural fluid (1,012), cerebrospinal fluid (915), ascitic fluid (528), urine (35) and pericardial fluid (8).

#### d. Sputum Cytology

Sputum samples from 1,320 patients (3 to 5 samples per patient) were studied and malignancies were reported in 278 cases. These include 238 cases of non-small cell carcinomas (adenocarcinoma – 41, squamous cell carcinoma –12 & unclassified -185) and 16 small cell carcinomas.

#### C. Haematopathology

A total number of 6,333 peripheral blood and bone marrow specimens were studied during this period. This included 3,210 bone marrow samples, 2,950 peripheral blood smears and 173 haematology slide reviews. Malignancies were reported in 912 cases, which include 150 cases of precursor Blymphoblastic leukaemia (B-ALL), 32 cases of precursor T- lymphoblastic leukaemia (T-ALL), 220 cases of acute myeloid leukaemia (AML), 135 cases of chronic myeloid leukaemia (CML), 53 cases of chronic lymphoproliferative disorders, 51 cases of non-Hodgkin lymphoma infiltrating marrow, and 125 cases of plasma cell myeloma (MM) cases. In addition to special stains, immunophenotyping by flow cytometry was done for 227 cases of leukaemia and surface immunophenotyping was done for 94 cases of leukaemia.

#### **ACADEMIC ACTIVITIES**

As part of the academic activities, seven lectures were given by national and international faculties.

#### **Teaching / Training programmes**

Regular Courses Conducted	
Course	Duration
DNB (Pathology)	3 years
Postdoctoral certificate in Oncopathology	1 year
Cytotechnologists training	1 year
Cytotechnicians training	6 months

## **PATHOLOGY**

Advanced training in Histotechnology for laboratory technicians 9 months

Regular postings were given to DNB students of Radiotherapy, and Surgical Oncology from RCC and MD Radiotherapy and MD Pathology students from Medical Colleges. Hands on training on histotechnology and immunohistochemistry were given to laboratory technicians and pathologists from various institutions. In addition, one month practical orientation was also given to 138 B.Sc. (MLT) students from Mahatma Gandhi University.

#### **TABLE 9: Ongoing Doctoral Programmes**

Sl. No.	Research Scholar	Title of Study/University	Guide
1. Ms. Keerthi		MicroRNA profiling in cancers /	
		Amritha Viswavidya Peetham	Dr.Rekha A. Nair
2.	Ms. Sharone C. Pereira	Identification of biomarkers for the differential	
		diagnosis of thyroid malignancies in	
		FNACs /M.S.University	Dr. Sujathan K
3.	Ms. Veena V.S.	Identification of biomarkers for lung cancer /	
		Bharathiar University	Dr. Sujathan K
4.	Mr. Thomas A.	Expression of WNT, JAGGED, NOTCH and	
		SONIC HEDGEHOG in different grades of	
		glioma: correlation with standard risk factors	
		and survival /Bharathiar University	Dr. Sujathan K



## **IMAGEOLOGY**



Ramachandran K.

Professor & Head

Venugopal M. Jiji V. Sumod Mathew Koshy Associate Professor Assistant Professor Assistant Professor

The Division, one of the three major Centres of diagnostic radiology in the campus, other than SCTIMST and Government Medical College, Thiruvananthapuram, caters to patients referred from other hospitals including SCTIMST.

The Division has two 500 mA X-ray machines, 2 portable 60 mA units, 2 doppler and 1B/W ultrasound scanners, mammography X-ray machine with

stereotaxy, mammotome biopsy unit, 16 slice MD CT and 1.5T MRI scanner with MR spectroscopy. The division hosts a comprehensive and unique breast disease diagnostic facility and a film library. The division works in tandem with divisions of Nuclear Medicine and Pathology. Steps were already initiated to digitize the X-ray units and to introduce the Picture Archiving and Communication System (PACS).



## **IMAGEOLOGY**

#### **ACADEMIC ACTIVITIES**

In addition to the ongoing DNB programme in Radiodiagnosis, training was imparted to students of other DNB specialities and also to MD students from various Medical Colleges. The faculty participated in activities like monthly Trivandrum Radiology Club, Neuro-oncology Club, Pulmonary Radiology Club in SUT, RCC Breast Clinic, Seminar on MRI in SCTIMST, etc. Dr.Sumod Mathew Koshy was admitted to the Fellowship of the Royal College of Radiologists (FRCR,UK) in April 2009.





#### TABLE 10: Diagnostic & Interventional Studies

Investigations	No.	
MRI scans	1414	
CT scans	13111	
CT guided aspiration	122	
Ultrasound scan	9959	
USS for guided intervention	189	
Doppler studies	130	
Mammography-Single	2625	
Mammography-Double	2719	
Barium studies	158	
Other procedures	13	



## **NUCLEAR MEDICINE**



Pradeep V.M

Additional Professor & Head

Sreekumar A.

Additional Professor

Nuclear Medicine refers to the use of open radioactive sources in the diagnosis and treatment of diseases. The Division caters to the needs of patients of RCC as well as the rest of the state of Kerala and adjoining parts of Tamil Nadu. Bulk of the patient load continued to be in the thyroid section followed by patients referred for isotope bone scans. The Division has facilities for imaging (dual head SPECT Gamma camera) as well as for therapy (thyrotoxicosis, high dose therapy for thyroid cancer and bone pain palliation). 910 new cases and 9198 review cases were seen during the report period.

#### TABLE 11: Diagnostic & Clinical services provided

Service	No.
SPECT Gamma camera imaging	6564
Ultrasound scan (Thyroid)	265
Thyroid cancer therapy	502
Thyrotoxicosis therapy	364
Bone pain palliation using Samarium	4

## **ANAESTHESIOLOGY**



#### **Rachel Cherian Koshy**

Additional Professor & Head

Mary Thomas Addition
Venugopal A. Associ

Mallika Balakrishnan Sudha P.

Viji Pillai

Bhagyalekshmi R. Rajasree O.

Deepthi Prabhu

Additional Professor

Associate Professor

Associate Professor

Assistant Professor Assistant Professor

Lecturer

Lecturer

Lecturer



## ANAESTHESIOLOGY

There was considerable increase in the number of procedures done under anaesthesia. Pre-anaesthetic evaluation was done 6 days a week. Anaesthesia was provided for major oncosurgeries, minor diagnostic and therapeutic procedures, children requiring CT guided procedures and radiation therapy. There was 96% increase in the use of laryngeal mask airway with a preference for 'I Gel', which was introduced during the reporting period. Broviac and Hickmann lines respectively for children and adult were inserted surgically in the former and percutaneously in the latter. Acute pain service for post-operative cases was provided for up to 72 hours after surgery.

#### **ACADEMIC ACTIVITIES**

In addition to the ongoing DNB programme in Anaesthesia, regular teaching programmes, seminars and journal clubs were also held in the division.



#### **TABLE 12: Clinical Services**

TABLE 12. Othlicat Scivices	
Pre-anaesthetic assessment clinic	No.
New cases	3476
Review case	4468
Total	7944
Anaesthetics administered	
Major cases	3378
Minor cases	481
Total	3859
Break-up of major cases	
Head & Neck	1234
Breast	1183
Gastro-intestinal	470
Gynaec-Urology	356
Oesophagus	26
Extremity	109
Total	3378
Special Techniques	
TIVA	69
GA+Epidural	555
Combined spinal + epidural	259
LMA	398
Plexus & other blocks	19
Anticipated difficult airway	74
Blind Nasal intubation	13
Total	1387
Tracheostomy	
Pre-op / Per op	30
Post op	31
Total	61

## RADIATION PHYSICS



Raghu Ram K. Nair

Additional Professor & Head

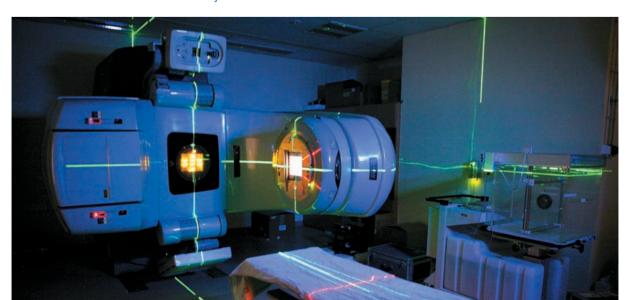
Thayal Singh Elias Associate Professor Raghu Kumar P. Associate Professor

Saju B. Assistant Professor (on leave)

Zhenia Gopalakrishnan Assistant Professor Divya K.T. Assistant Professor

Giri Purushothaman Lecturer in Electronics Engineering

Debjani Phani Lecturer



## RADIATION PHYSICS

#### **ROUTINE ACTIVITIES**

- Calibration and quality assurance of radiotherapy equipments.
- Treatment planning and dose computation.
- Radiation safety in Radiotherapy, Imageology and Nuclear Medicine divisions.
- Participation in intercomparison and external verification of dose output of treatment machines using TLD in BARC/IAEA programmes.
- Daily maintenance, checking and repair of all teletherapy and brachytherapy equipments.
- Intraoperative, intraluminal and mould brachytherapy using Microselectron HDR.

#### **TABLE 13: Patient Services**

TABLE 13. I diletti Services	
Treatment given	Total No. of Patients
External Beam Radiotherapy	7058
Brachytherapy (Microselectron	HDR)
Gynaec	1351
Oesophagus	18
Others	22
Simulator	4537
Mould Room	
Orfit Shell	1675
Bite Block	564
Wax Bolus	295
Electron Cut-outs, Head	rest,
Leg rest, face rest, mou	ld etc. 557

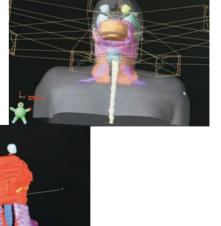
#### **ACADEMIC ACTIVITIES**

Classes were conducted in Medical Physics and practical training was imparted to the following categories of students:

- 1. DRT, DMLT & B.Sc.(MLT)
- 2. M.Sc. Radiation Physics, B.Sc. & M.Sc. Nursing
- 3. MBBS, DMRT, DMRD, MDS (Oral Radiology)
- 4. MD & DNB (Radiodiagnosis)

#### TRAINING PROGRAMME

The three months refresher programme in Imageology/Nuclear Medicine and Radiotherapy for radiographers started in 1994 has covered 36 trainees in Radiotherapy till March 2010.



## CLINICAL LABORATORY SERVICES



#### Thomas Abraham

Scientific Officer Gr.I & Head

Activities of the Division included specimen collection for outpatients, processing, analysis and reporting of various tests for both out-patients and in-patients. On an average a patient made use of the services about 11 times during this period. Average turn around time for haematology services was about 1.0 hour and for clinical chemistry and coagulation profile was 1.2 hours. Introduction of vacutainer system for collection of blood samples had helped to reduce pre-analytical errors and number of recollected specimens. The division provided services to 18,985 patients during the report period. The Division comprises of the Phlebotomy, Clinical Chemistry and Haematology laboratories.

#### **PHLEBOTOMY**

The out-patients services provided by the phlebotomy lab include blood collection, provision of containers and instructions for urine collection for creatinine clearance. The lab carried out 1,32,780 collection related procedures during the period.

#### **CLINICAL CHEMISTRY**

Clinical chemistry lab processed, analysed and reported 4,56,182 tests during the report period. This included investigations such as total CO<sub>2</sub>, lipase, lipid profile, C- reactive protein, gamma glutamyl transferase (GGT), bilirubin conjugated and unconjugated, total iron binding capacity (TIBC), etc. Urine analysis section provided reports on 19,840 samples.

## CLINICAL LABORATORY SERVICES

#### **HAEMATOLOGY**

Haematology lab carried out 4,94,968 tests, majority of which were done using fully automated haematology analysers. Differential count and reticulocyte count were carried out by microscopy.

#### **TABLE 14: Investigations Done**

•	
Biochemistry	<b>N</b> o.
Sugar	55802
Urea	38443
Creatinine	44451
Uric acid	23072
Bilirubin	26463
Other bilirubin fractions	
(Direct bilirubin, conjugated &	
unconjugated bilirubin, Delta bilirubin &	
neonatal bilirubin)	2222
SGOT (AST)	26848
SGPT (ALT)	27140
Alkaline phosphatase	22840
Gamma glutamyl transferase	147
Total protein	18623
Albumin	18400
Globulin	18400
C- Reactive protein	470
Cholesterol	726
Lipid profile	
(Cholesterol, HDL, LDL & Triglycerides)	492
Sodium	41181
Potassium	41181
Chloride	547
Total CO <sub>2</sub>	297
Calcium	25322
Phosphorous	2856
Magnesium	3294
Iron	67
Total iron binding capacity	59
Creatinine clearance test	1402

LDH	4990	
Amylase	451	
Lipase	66	
CSF (sugar & protein)	194	
Serum immunoglobulin assay		
(IgG, IgA & IgM)	959	
Serum electrophoresis	745	
Haematology	No.	
Haematology CBC (Haemoglobin,		
WBC & platelets)	136088	
Differential count	12300	
Reticulocyte count	39	
ESR	3558	
Coagulation parameters	No.	
Bleeding time/Clotting time	3861	
Prothrombin time	2348	
APTT	540	
OLIALITY ASSUBANCE		

#### **QUALITY ASSURANCE**

The division has participated in the external quality assurance services of Bio-Rad Laboratories, USA for haematology and clinical chemistry proficiency testing programme.

### ACADEMIC ACTIVITIES AND TRAINING PROGRAMMES

Staff attended workshop on quality control organised by Quality Council of India and Bio-Rad. All the staff were also given in-house training in proficiency testing, pre-analytical errors, training on instrumentation, phlebotomy, etc.
In addition to the training in laboratory medicine, short term industrial training was provided to graduate and post-graduate students of biochemistry, biotechnology, microbiology and B.Sc. (MLT) from various Universities. Short term training was also given to 21 B.Sc. Biotechnology/

## **MICROBIOLOGY**



#### Swapna R. Nath

Assistant Professor & Head

Infections are a major cause of morbidity and mortality in cancer patients. They are susceptible to infections due to a wide variety of microorganisms including bacteria, viruses and fungi. The Division played a pivotal role in reducing morbidity and mortality in cancer patients by providing efficient services for the diagnosis of infectious diseases of bacterial, fungal, tubercular or parasitic nature. Major services provided include aerobic and anaerobic bacterial culture, antibiotic susceptibility testing, bacterial identification, serological tests, fungal culture and TB culture. Surveillance cultures for monitoring and evaluation

of sterility in operation theatres, ICUs, bone marrow transplant unit, CSSD and other critical care areas were also done.



#### TABLE 15: Investigations done

Investigations	No.
Blood culture and sensitivity	2168
Exudate culture and sensitivity	
(pus aspirates, pus swabs, catheter	
tips, biopsy specimens, other aspirates)	584
Urine culture and sensitivity	531
AFB staining	484
Sputum culture and sensitivity	307
Throat swab culture and sensitivity	163
Routine culture and sensitivity	150
Faeces culture and sensitivity	61
Surveillance culture	45
AFB culture	27
Fungal culture	21
CSF culture and sensitivity	20
Other procedures	11

#### **ACADEMIC ACTIVITIES**

Division imparted training for the project work of M.Sc. Microbiology students, six months internship for B.Sc Microbiology students and one month observership training for B.Sc. (M.L.T) students.

### TRANSFUSION MEDICINE



Vijayalakshmi K.

Jayalakshmi P. Assistant Professor & Head Rajesh R. Chandran

The Division got renamed as 'Transfusion Medicine' during the reporting period in view of its broader line of activities and services. A notable achievement during the period was the commissioning of the new 'Blood Irradiator' by Shri. M. Vijayakumar, Hon'ble Minister for Law and Parliamentary Affairs on 2<sup>nd</sup> March 2010. The machine uses gamma rays to irradiate the blood to minimise transfusion reactions. The Division has been recognized as a Regional Blood Transfusion Centre by National AIDS Control Organization, which regularly provides kits, reagents, consumables and two staff members-one Lab Technician & one counsellor-to support its activities.

#### **ROUTINE ACTIVITIES**

- Collection of blood from voluntary and replacement donors, conducting blood collection camps (20 nos. during the period) and processing and separation.
- Issue of blood and blood components to RCC patients as well as to patients in hospitals in and around Trivandrum city.
- Plateletpheresis.

Resident Medical Officer Resident Medical Officer

• A total number of 20,415 persons (19,868 male and 547 female) had donated blood under the voluntary blood donation programme.

#### **ACADEMIC ACTIVITIES**

Regular training were provided to postgraduate students in pathology, nursing staff, B.Sc. (MLT), M.Sc. (MLT) and DMLT students. Observership training on good blood banking practices was given for staff members from Terumo Penpol and HLL Lifecare Ltd.

TABLE 16: Blood component separation and issue

Components	PRC	PRP	FFP	PC
No. Separated	20231	17047	3170	3170
No. Issued	14582	16739	3085	2978

#### TABLE 17: Transfusion transmissible diseases detected

HbsAg	HCV	HIV	VDRL M	alarial parasite
141	66	13	1	2

All positive cases were traced, called back, counselled and referred to higher centres for confirmation and further advice.

## PAIN & PALLIATIVE CARE



Cherian M. Koshy
Additional Professor & Head

Prasanth C.V. Manju Achamma Varghese

Resident Medical Officer Resident Medical Officer

The Division continued to have multifaceted activities. In addition to pain management, the division has taken care of all aspects of patient care like psycho-social issues, lymphoedema care etc. The division maintained close liaison with NGOs like 'Care-Plus' and 'Asraya'. Care is taken to the door step to patients who are either poor or sick to travel from long distances within Thiruvananthapuram district and those from other districts were linked to their nearest Palliative Care Centre.

#### **TABLE 18: Patients statistics**

TABLE 10.1 duents statistics		
Cases	No.	
New	3138	
Review	6136	
Tele-clinic consultations	52	
Total	9326	

#### **ACADEMIC ACTIVITIES**

The division is a Centre for the certificate course in 'Essentials of Palliative Care' conducted by the Indian Association of Palliative Care. Two batches of 40 students each (in June and November 2009) have successfully completed the course.

The 'World Palliative Care Day' was celebrated with great gusto on 10<sup>th</sup> October 2009, at a function inaugurated by Shri. M. Vijayanand, Principal Secretary, Local Self Government, Government of Kerala. As part of the programme a workshop on 'communication skills' was also organised.

### **DENTAL CARE**



#### Nalina Kumari K.R

Associate Professor & Head

This division provided a variety of treatment modalities for the oral health and radiation protection of teeth of cancer patients. These included procedures like oral biopsies, oral prophylaxis, conservative therapy, dental extractions, occlusal adjustments, therapeutic management of pre-cancerous oral lesions, pre and post-radiation care of teeth, reconstructive procedures like construction of maxillofacial prosthesis, management of ulcers, spontaneous bleeding, toothache, trismus etc.

#### **CLINICAL SERVICES**

#### **TABLE 19: Patient statistics**

Cases	No.
New	89
Consultation	106
Post radiation care	463
Total	658

#### Pre & post radiation care of teeth

Procedures like oral prophylaxis, conservative therapy and extractions were used for pre-radiation care, where as neutral fluoride gel therapy was resorted for post-radiation care. Oral hygiene instructions for better maintenance during treatment were also provided.

#### Pre & post surgical oral care

Included care of conditions such as caries tooth, root stumps, poor oral hygiene, etc. In the post-surgical period, maxillofacial prosthesis was advocated for correcting deformities of the face.

#### Post chemotherapy oral care

Were provided by the use of smoothing, protecting and antimicrobial oral rinses and ointments. Post chemo dental caries were managed by neutral fluoride gel therapy, conservative therapy and proper oral hygiene instructions.

### **NURSING SERVICES**



Sreelekha R.
Chief Nursing Officer

Flower Augustine Nursing Superintendent

Hands and heart are two tools used by nurses in patient care even in this era of modern technologies. Nursing division is a round the clock functioning Division responsible for rendering quality nursing care to all cancer patients. A notable achievement during the report period was the preparation of a 'Policy and procedure manual for nurses'.

#### **SPECIAL CLINICS**

The Division conducted special clinics on central venous access devices (CVAD) insertion (long term and short term catheters), stoma care (Friday After Noon), voice and speech rehabilitation (assisting the surgeon for the insertion of tracheo esophageal prosthesis (TEP), educating the patients on the use of electro larynx, prosthesis, cleaning and care of TEP, usage of

swallowing rehabilitation and shoulder exercises during post operative period, psychological assurance, etc.) and cancer carer's training. Patients and their relatives were given awareness classes on side effects of chemotherapy, radiation therapy, post mastectomy care and home care of bed ridden patients.

#### **ACADEMIC ACTIVITIES**

The division conducted 2 training programmes on 'Managerial skills for nurse managers' and 3 training programmes on 'Oncology nursing updates - I' during the period under report. In addition, the division offered clinical experiences and orientation / observation updates to Nursing students from government as well as private nursing colleges, as detailed below.

- Clinical experience to M.Sc. Nursing (17) students
- Clinical experience to B.Sc. Nursing (629) students
- Orientation updates (237 students)

#### **OTHER ACTIVITIES**

- Celebrated Nurse's day
- Organized 'Infection Control Week'.
- Conducted orientation training on 'Oncology Nursing & Infection Control'
- Organized 'In-service education on Chemotherapy' for the benefit of all nursing staff.

## CLINICAL SERVICES & MEDICAL RECORDS



#### Raveendran Nair R

Administrative officer (Clinical Services)

Chandrika D. Surendran Nair V. Latha P.T. Medical Records Officer Public Relations Officer Assistant Professor

The division has been entrusted with the management of Front Office, Medical Records, Pharmacy, Vehicles, Cancer Care for Life scheme, Patient accounts & billing, all kinds of patient welfare services and Public Relations activities.

#### **TOTAL PATIENT FLOW**

Patients referred to RCC for consultation and treatment were registered and those who were referred for the purpose of investigations were not registered.

The following table shows the patient attendance statistics during the period, 2009-2010.

#### **TABLE 20: Hospital statistics**

No.	Item	No.
1	New cases registered	13040
2	Review cases*	167628
3	Total Patients (New + Review)	180668

4	Daily average	602
5	Average attendance per patient	14
6	In-patient admissions	10831
7	Total bed occupancy	96037
8	In-Patient bed**	278
9	Average bed occupancy	263
10	Percentage of bed occupancy	95
11	Average length of stay (days)	09
12	Hospital death	640
13	Telemedicine consultations	1917

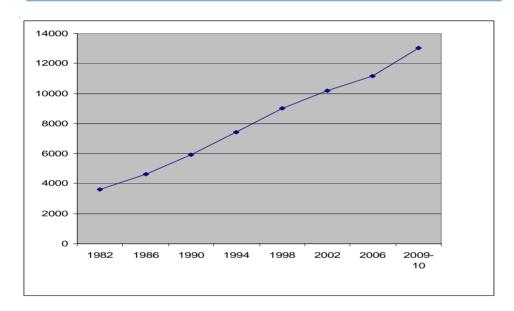
\*Follow up at peripheral centers, tele clinic, palliative care, clinic to clinic consultation, review during treatment etc. are not included.

\*\* Day care chemo ward, cubicle chemo ward and other admissions not meant for overnight stay are not included.

Figure 2 shows the trend in the increase of new patients' registration

## CLINICAL SERVICES & MEDICAL RECORDS

Fig. 2: New cases (1982 to 2009-10)



#### **Patient categories**

Category*	No. of patients	%
F	5868	45
М	2999	23
0	4173	32
Total	13040	100

\*F - Not affordable to pay but a little (radiation totally free)

M - Affordable to pay partially

O - Affordable to pay fully

#### **PATIENT STATISTICS**

Every new patient was registered in the site specific clinic. Compared to previous year, percentage wise distribution of cases remains the same except 1% increase in 'E' clinic and decrease in 'D' clinic.

#### TABLE 21: New cases (Speciality clinic wise)

Clinic	No.	%
Α	1833	14
В	2408	19
С	2142	16
D	2115	16
E	3023	23
F	609	5
G	910	7
Total	13040	100

A – Haemato-Lymphoreticular system, bone & soft tissue sarcoma

B - Head & Neck

C – Breast & Central Nervous System

D - Gynaec & Genito urinary and others

E - Chest & Gastro-intestinal

F – Paediatric (Patients up to the age of 14 years)

G - Thyroid

#### TABLE 22: New & Review cases (Speciality clinic wise)

Clinic	New	Review*	Total
Α	1833	25560	27393
В	2408	20975	23383
С	2142	31019	33161
D	2115	24142	26257
Е	3023	24312	27335
F	609	20421	21030
G	910	9198	10108

#### TABLE 23: New cases (Age/Sex wise)

Age Group	Male	%	Female	%	Total	%
0 -14	361	6	279	4	640	5
15-24	235	4	304	5	539	4
25-34	338	5	580	9	918	7
35-44	669	10	1104	17	1774	14
45-54	1251	19	1645	25	2896	22
55-64	1806	28	1414	22	3220	25
65-74	1311	20	905	14	2216	17
75+	509	8	328	5	2837	6
Total	6480	100	6560	100	13040	100

#### TABLE 24: Patient statistics: New cases (Religion wisel

WISCI						
Religion	Male	%	Female	%	Total	%
Hindu	3819	59	4056	62	7875	60
Muslim	1363	21	1216	18	2579	20
Christian	1296	20	1288	20	2586	20
Total	6480	50	6560	50	13040	100



TABLE 25: In-Patient admission (Speciality clinic wise)					
Clinic	Admission**	New Repeat		%	
		Admission	Admission		
Α	2219	517	1702	20	
В	1303	905	398	11	
С	1762	1227	535	16	
D	1276	679	597	12	
Е	2019	1049	970	19	
F	1536	381	1155	14	
G	716	716		7	
Total	10831	5474	5357	100	

\*\*Admission to palliative care, surgery are included in the concerned clinic.

#### **REFERRAL SYSTEM**

CLINICAL SERVICES & MEDICAL RECORDS

RCC is a tertiary referral hospital and patients are referred from in and outside Kerala. The majority of the patients were referred from teaching hospitals, private hospitals and eminent private doctors. The following tables show the hospital wise and District wise references.

#### **TABLE 26: Referred cases (2009-2010)**

Referred from	No.	%
Teaching Hospitals (MCH)	3882	30
District/ General Hospitals	466	4
Other Govt. hospitals	594	5
VSSC/ECHS/ESI/CGHS/ Railway Hospitals	1736	13
ECDC and Peripheral Centres	157	1
Other Cancer Centres	69	1
Private Doctors	555	4
Private Hospitals	5147	39
Overseas	138	1
Self/RCC	296	2
Total	13040	100

### CLINICAL SERVICES & MEDICAL RECORDS

#### TABLE 27: New cases by geographical area

No.	%
3061	23
2330	18
731	6
767	6
367	3
185	1
596	5
555	4
636	5
416	3
808	6
98	1
171	1
456	4
1863	14
13040	100
	3061 2330 731 767 367 185 596 555 636 416 808 98 171 456 1863

\* Include Tamil Nadu (1626), other States (79) and Abroad (158).

23% of patients reported from Thiruvananthapuram district and 14% from outside Kerala. There is 1% increase in patients from Malappuram district.

#### **PHARMACY**

The pharmacy services wing of this Division handled medicines worth Rs.30,07,05,479/-† during the period under report. Anti cancer medicines worth of Rs.10,15,351/-† have been issued free to 181 cancer patients belonging to very low socio-economic status under the treatment protocol recommended by the academic forum of the centre.

#### **CANCER CARE FOR LIFE (CCL) SCHEME**

During the period 181 new patients reported for treatment under the Cancer Care for Life scheme. Out of this 131 patients belong to Scheme I, 35 patients belongs to Scheme II and 15 patients

belongs to Scheme III. Rs.87,52,238/-† was spent towards the cost of investigations, treatment, etc. and the average amount spent per patient was Rs.48,355/-. Rs.63,49,020/-† was collected through new memberships. 9894 individuals were enrolled under Plan A scheme and 146 members were enrolled under Plan B scheme.

† - Unaudited figure

#### **TRAINING PROGRAMMES**

The Division organized a CME on Medical Record Science, jointly sponsored by IARC, RCC and Kerala Health Services Medical Record Employees Association, on 10 October 2009. One week training in clinical service activities was imparted for students of MA/MSW from various universities. The division also provided hospital orientation for students from Mahatma Gandhi University, Kottayam.

#### **PATIENT WELFARE SERVICES**

The major requirements of poor patients from distant places are financial help, accommodation, psychological support and rehabilitation. Financial help for medicine, transportation, food, etc. was arranged through governmental and nongovernmental agencies and voluntary organizations like Asraya and Care Plus housed at RCC. General medicines and chemotherapy drugs worth Rs. 11,00,000/- were provided free of cost to 7577 poor patients through Free Medicine Bank functioning at the Centre. Arrangements were made to provide food worth Rs.17,97,814/- for poor inpatients through RCC welfare fund and donations from sponsors and NGOs. Individuals and voluntary organizations including the Board of Directors, SDM-California, Sri. Sirdhi Sai Trust, Madyamam, Melam Masala, G.P. Trust, Karuna Charities, Karunya and Holy Trinity have extended their support liberally.

### CLINICAL SERVICES & MEDICAL RECORDS

Patients were given psychological support and counseling (473 patients), exercise and arm care for lymphoedema prevention (377 patients) and breast prosthesis (521 patients). In the lymphoedema clinic, patients and their families were assisted to cope with the problems of frustration and despair with the help of patient volunteers.

#### **TABLE 28: Government Schemes for Poor Patients**

Scheme	No. Benefit	ed Amount Spent
Cancer Suraksha		
Scheme		
(Govt. of Kerala)	571	Rs. 2,33,90,378/-
Comprehensive Heal	th	
Care Scheme for		
Scheduled Tribe	28	Rs. 22,95,574/-
Society for Medical		
Assistance to the Poo	or	
(Govt. of Kerala)	397	Rs. 39,65,000/-
Prime Minister's		
Relief Fund	50	Rs. 50,62,838/-

#### **PUBLIC RELATIONS WING**

The PR wing of the centre deals with the day-to-day public and media relations activities. Information Counter, Telephone Exchange and the Security system are also under the supervision of the PR wing. Co-ordination of public functions, VIP visits,

and special campaigns of the centre, conducting press conferences and issue of press releases were also done during the period. 'Radiohealth', a programme in AIR about cancer patients' welfare programmes and participation of paediatric patients in the 'Idea Star Singer' programme of Asianet TV channel had immense impact among the viewers. The major PR campaign done during the period was for the 'Cancer Care for Life' (CCL) scheme in Saudi Arabia and Qatar with the assistance of 'Navodaya Samskarika Samithy', a cultural organization. The campaigning could create awareness about cancer and cancer care for life scheme among the 'Pravasimalayalees' of these countries. Hundreds have joined the scheme and the enrolment still continues.

In the breast screening programme organised in connection with the breast cancer awareness month in October 2009, 658 women underwent breast cancer detection procedures.

Classes were conducted for nurses on 'CCL Scheme' and 'communication to patients'. Articles on cancer, RCC and CCL were published in various periodicals and programmes were telecasted in Doordarsan, Soorya, Asianet, ACV, Kairali and Jaihind TV channels.

## COMMUNITY ONCOLOGY



Ramani S. Wesley

Professor & Head

Gigi Thomas Jayakrishnan R.

The major activities were primarily aimed at human resource development and primary and secondary prevention of common cancers. These were achieved by conducting trainer- trainee programmes, cancer awareness/education programmes, cancer detection camps and also through the functioning of early cancer detection clinic in the division.

Associate Professor Lecturer (on leave)

#### **CANCER CONTROL ACTIVITIES**

#### **Human Resource Development**

- a) Trainer Trainee Programmes: Through 75 programmes, 11,054 trainers were educated. (Table 29).
- b) Cancer Awareness Programmes: 14,254 persons were given training through 91 cancer education programmes.
- c) International School of Colposcopy: 53 gynaecologists were given hands on training on colposcopy for one week at RCC. 82 nurses, 310 health workers and 162 B.Sc. (MLT) students were given one day orientation programme on VIA, VILI and colposcopy.

### COMMUNITY ONCOLOGY

#### TABLE 29: Details of Trainer Trainee programmes

	3
Categories of Trainees	No. trained
Nurses	900
Doctors	375
Dentists/Dental students	125
Community volunteers	495
Paramedicals (B.Sc. MLT)	162
Health supervisors and workers	725
Student representatives & teachers	6872
Bank/Factory/ Technopark/VSSC	1400
Total	11054

### EARLY CANCER DETECTION THROUGH COMMUNITY SCREENING

#### a. Screening for Oral, Breast, and Cervical cancers

The peripheral centres and nodal centres are referring patients with precancers and cancers to the Early Cancer Detection Clinic functioning at the division for confirmation of diagnosis, colposcopy, LEEP, cryotherapy, etc. Patients having leukoplakia were treated by chemoprevention or by excision. Propagation of breast self examination and clinical evaluation of breast disease and referral for mammography were done for 1250 patients. A total number of 18455 persons underwent screening in the Centre and cancer detection camps. The following table illustrates the number of cases of cancers and precancers detected.

**TABLE 30: Community Screening** 

	•	•
Sites	Cancers detected	Precancers & benign
		lesions detected
Oral	169	807
Breast	103	578
Cervix	24	414
Others	90	

#### **TABLE 31: Colposcopic evaluation**

Procedures done	No.
Total colposcopies	2284
Colpodirected biopsies	356
LEEP therapy	34
Cold coagulation	66
Pap smears	1996
High grade lesions	68
Low grade lesions	165

### b. Cancer Detection Camps & Cancer Awareness Programmes

In addition to 78 cancer detection camps, weekly cervical cancer detection clinics were also conducted at Mangalapuram for the women residing in the control area of breast cancer screening project. Three programmes were televised, five programmes were aired through All India Radio and five articles were published through the press. 12 exhibitions were conducted which were viewed by around 4.5 lakh people.

#### c. Tobacco Cessation Clinic

343 patients visited the Tobacco Cessation Clinic functioning in this division. Behavioral counseling and Nicotine Replacement Therapy were provided to the needy.

#### SEMINARS/WORKSHOPS ORGANISED

World No Tobacco Day was observed on 31st May 2009, which was inaugurated by Smt. P. K. Sreemathi Teacher, Hon. Minister for Health and Social Welfare, Govt. of Kerala. The theme of the day was 'Tobacco Health Warnings'. A Workshop on Oral Precancers and Cancers was organised on National Cancer Awareness Day, 7th November 2009, in which 130 medical and dental professionals participated. A training manual on 'Oral Precancers and Cancers' was prepared and distributed among the

### COMMUNITY ONCOLOGY

participants. Another workshop on cancer awareness was also organized on 4th February 2010, the World Cancer Day, in which 78 hospital employees were given training on the early detection of common cancers.

#### OTHER PROGRAMMES

An Advocacy workshop on Effective Enforcement of Tobacco Control Laws in Alappuzha District was organised on 29th July 2009, which was inaugurated by Mr. R. Nazar, President, Jilla Panchayath, Alappuzha District. Key Note Address was delivered by Mrs. Vineet Gill Munish, National Professional

Officer, Tobacco Free Initiative, World Health Orgianization.

Strategic meeting of key stakeholders in tobacco control, Ernakulam District was inaugurated by Prof. Mercy Williams, Worshipful Mayor of Kochi Corporation on 5th August 2009.

In quiz programmes on tobacco control measures, students of different schools from Idukki district, such as government Tribal High School, Kattapana (13.07.09), St. Jerom's HSS, Irattayoor (15.07.09) and St. Thomas Higher Secondary School, Valiathovalai (16.07.09) participated.

#### **TABLE 32: Ongoing Doctoral Programmes**

Sl. No	. Research Scholar	Title of the Study/University	Guide
1.	Dr.Gigi Thomas	Search for predictive genetic markers of high	
		risk malignant transformation potential in	
		oral leukoplakia patients/University of Kerala	Dr. Ravindran Ankathil
2.	Dr. Jayakrishnan R.	Effectiveness of community based tobacco	
		cessation intervention in rural Kerala/University	
		of Tampere, Finland.	Dr. Antti Uutela (Finland),
			Dr. Aleyamma Mathew, (RCC)

### CANCER RESEARCH



Kannan S.

Additional Professor & Head

Remani P. Hariharan S. Sreelekha T.T.

Research in this division concentrates on molecular basis, molecular diagnosis and prognosis of cancer. Main research areas are cell cycle regulation, molecular oncology, glycobiology, phytopharmacology, cytogenetics, molecular diagnostics and biopharmaceuticals. Studies on the significance of micro-RNA expression pattern and molecular dissection of TGF-Smad signaling pathway in oral carcinoma are some of the major areas of research in molecular oncology. Characterization of chromosomal abnormalities and search for genetic markers for prognostic stratification are going on for haematological malignancies. Cytogenetic studies on the effect of chronic low level radiation in the residents of high background radiation areas (HBRA) in Karunagappally, Kerala is also progressing. Characterization of active principles with antitumour and immunomodulatory activities and anticancer drug development from plant polysaccharides are the other areas in which active research is going on.

Additional Professor Lecturer Scientific Officer Gr.I

Systematic renovation of the laboratories, generation of new research facilities and molecular diagnostic investigations for better patient care were continued throughout the period. A fluorescent in situ hybridization (FISH) facility was established as part of these programmes.

On the academic front, the Division continued to attract bright young researchers with CSIR/UGC/ICMR fellowships from various parts of the State. During 2009-2010, 7 students were awarded PhD degree. Two of the research scholars received Young Scientist Award and one of them received Best Poster award in the 22nd Kerala Science Congress held at Peechi. The scientific contributions of the faculty and the students have come out in the form of 17 paper presentations and 9 publications. Apart from this, 48 postgraduate students have completed their three months dissertation work and another 58 students got short term training in molecular oncology.

# CANCER RESEARCH

sl. N	o. Research Scholar	Title of the Study/University	Guide
١.	Ms. Abitha Murali	Characterization of molecular alterations in the Retinoblastoma	
		(Rb) gene in oral carcinoma/University of Kerala.	Dr. S. Kannan
2.	Mr. Deepak Roshan V. G	. Study on the identification of factor/s involved in over	
		expression of Cyclin- D1 in oral carcinoma/University of Kerala.	Dr. S. Kannan
3.	Mr. Dileep Kumar U.	Studies on the biology of carcinoma of buccal mucosa and	
		tongue/University of Kerala.	Dr. S. Kannan
, +.	Mr. Christo Rajan	Study of the significance of miRNA expression pattern in oral	
		carcinoma /University of Kerala.	Dr. S. Kannan
5.	Mr. Sivadas V.P	Molecular dissection of TGFB/ Smad pathway in oral	
		carcinoma /University of Kerala.	Dr. S. Kannan
).	Ms. Lakshmi S	Antitumour activity of some selected medicinal plants of	
		Zingiberaceae/University of Kerala.	Dr. P. Remani
7.	Ms. Dhanya G. S	Cytotoxic and immunological studies of two Solanaceae	
		plants/University of Kerala.	Dr. P. Remani
3.	Ms. Biba V. S	Antimicrobial, antitumour and immunomodulatory properties	
		of two species of Annona (Annonaceae)/University of Kerala.	Dr. P. Remani
7.	Mr. Praveen Kumar B R	Germline mutation analysis of mismatch repair genes in familia	l
		colorectal cancer patients /University of Kerala.	Dr. Ravindran Ankathi
10.	Ms. Sangeetha Vijay	Molecular genetic basis of resistance to imatinib mesylate	
		treatment in chronic myeloid leukaemia patients/	
		University of Kerala.	Dr. S.Hariharan
11.	Ms. Santhi S	Prognostic significance of chromosomal aberrations	
		and FLT3 gene mutation status in patients with acute	
		myeloid leukaemia/University of Kerala.	Dr. S.Hariharan
12.	Mr. Aravind SR	Immunomodulatory and anticancerous properties of	
		Tamarind seed polysaccharides/University of Kerala.	Dr. T.T. Sreelekha
13.	Mr. 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
4.	Ms. Sheeja Varghese	Studies on the molecular mechanisms of antitumour /	
		immunomodulatory polysaccharide from Mangifera indica/	
		University of Kerala.	Dr. T.T. Sreelekha

# CANCER RESEARCH

#### TABLE 34: PhDs Awarded

IADI	LE 34: FIIDS Awarded		
Sl. N	o.Research Scholar	Title of Study/University	Guide
1.	Ms. Sailasree R	Molecular studies on involvement of p14/ARF	
		gene in oral carcinoma	Dr. S. Kannan
2.	Ms. Sreeja L.	Genetic susceptibility studies in lung cancer/	
		University of Kerala	Dr. Ravindran Ankathil
3.	Ms. Vani S.	Molecular genetic analysis of BRCA2 gene mutations and its	
		pathobiology in hereditary breast and ovarian cancer/	
		University of Kerala	Dr. Ravindran Ankathil
4.	Ms. Volga S.S.	Role of germline polymorphism of few low penetrance genes	
		in familial breast cancer/ University of Kerala.	Dr. Ravindran Ankathil
5.	Ms. Salini V.	Molecular alterations in regulation to radiation response in	
		squamous cell carcinoma/ University of Kerala	Dr. Prabha Balaram
6.	Mr. Suraj K.George	Immunomodulatory activities of major plants used in the	
		preparation of indukantha ghritha (Rasayana) in experimental	
		animals/ University of Kerala.	Dr. Prabha Balaram
7.	Mr. Vino T. Cherian	Treatment response in oral cancer patients in relation to	
		T-lymphocyte function/ University of Kerala.	Dr. Prabha Balaram



# MOLECULAR MEDICINE, DRUG DEVELOPMENT & CHEMOINFORMATICS



Lakshmi S.

Assistant Professor & Head

The Division has been working on research projects in molecular and cellular biology and seeks greater and more comprehensive understanding of human biology and disease. The department has ongoing projects on role of estrogen receptor co-regulators in the development of breast cancer, the elucidation of cell signaling pathways in the development of breast cancer, gene environment interaction and susceptibility to breast cancer, molecular genetics of paediatric acute lymphoblastic leukemia in Kerala, and molecular markers as indicators of clinical profile, tumor characteristics and treatment outcome in squamous cell carcinoma of the larynx. Studies have also been initiated on the molecular mechanisms of multidrug resistance in ovarian cancer. The projects are supported by grants from

DBT, DST, ICMR, and KSCSTE. The data produced till date have been presented in national conferences by the research fellows. In addition the division has collaborative projects with Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram in areas of molecular profiling of HPV subtypes prevalent in India, proteomic profiling of breast cancer in search of tumor markers for early onset and tamoxifen resistance in breast cancer.

As part of human resource development, this division permits students from various academic institutions at the postgraduate level to carry out dissertation and project work in biotechnology and molecular biology. 18 M.Sc. students have completed their observation training/project work during the period.

# MOLECULAR MEDICINE, DRUG DEVELOPMENT & CHEMOINFORMATICS

#### **TABLE 35: Ongoing Doctoral Programmes**

Guide
Dr. Lakshmi S
Dr. Lakshmi S
Dr. Lakshmi S
[



# CANCER EPIDEMIOLOGY & CLINICAL RESEARCH



#### Aleyamma Mathew

Additional Professor in Statistics and Epidemiology & Head

Padmakumary Amma G. Kalavathy M.C. Preethi Sara George

The Division has been functioning as the hospital based cancer registry (HBCR) of RCC and Trivandrum population based cancer registry (PBCR). A total of 13,040 new patients were registered at RCC during the period under report. Among these, 11,438 cases (5786 males and 5652 females - 88%) were malignant tumours. Cancer of the lung (n=779, 13.5%) was the leading site among males followed by cancer of the oral cavity (n=774, 13.4%). Among females, cancer of the breast (n=1610, 28.5%) was the leading site followed by cancer of the thyroid (n=673, 11.9%) (Table 36). According to the population-based cancer registry data, the leading cancers in Thiruvananthapuram are lung (15.4 per 1,00000 males) and oral cavity (12.4 per 1,00000 males) among males and breast (34.4 per 1,00000 females) and ovary (8.3 per 1,00000 females) among females for the year 2008 (Table 37). The division conducted regular cancer awareness

Assistant Professor in Bio-Statistics Assistant Professor in Epidemiology Lecturer in Bio-Statistics

classes and detection camps in Thiruvananthapuram district and conducted 50 cancer detection programmes in Thiruvananthapuram Corporation area. Among the 9800 women who underwent breast screening, breast cancer was detected in 3 cases. Pap smear was done for 2365 women and 9 precancers were detected. Among 13,008 subjects screened, 94 oral pre-cancers and 4 oral cancers were detected. Pap smear screening was done in 2235 women who attended Women & Children Hospital, Thycaud and government hospital, Peroorkkada. Among these, 20 cervical pre-cancers and 18 cervical cancers were detected. The division also conducted 24 camps among cashew factory workers. The division conducted epidemiologic studies to assess the risk factors of various cancers and pattern of care and survival of cancer patients were assessed through various research programmes.

# CANCER EPIDEMIOLOGY & CLINICAL RESEARCH

TABLE 36: Site-wise distribution of patient registration by gender (2009-2010)

ICD	Site	Male	%	Female	%	Total	%
C00	Lip	15	0.26	15	0.27	30	0.26
C01	Base of tongue	30	0.52	4	0.07	34	0.30
C02	Tongue	295	5.10	147	2.60	442	3.86
C03	Gum	114	1.97	92	1.63	206	1.80
C04	Floor of mouth	49	0.85	1	0.02	50	0.44
C05	Palate	30	0.52	18	0.32	48	0.42
C06	Other mouth	241	4.17	140	2.48	381	3.33
C07	Parotid gland	21	0.36	20	0.35	41	0.36
C08	Salivary gland	7	0.12	7	0.12	14	0.12
C09	Tonsil	46	0.80	6	0.11	52	0.45
C10	Oropharynx	148	2.56	8	0.14	156	1.36
C11	Nasopharynx	34	0.59	15	0.27	49	0.43
C12	Pyriform sinus	67	1.16	3	0.05	70	0.61
C13	Hypopharynx	94	1.62	36	0.64	130	1.14
C14	Pharynx unspecified	8	0.14	1	0.02	9	0.08
C15	Oesophagus	221	3.82	90	1.59	311	2.72
C16	Stomach	300	5.18	98	1.73	398	3.48
C17	Small intestine	13	0.22	4	0.07	17	0.15
C18	Colon	122	2.11	82	1.45	204	1.78
C19	Rectosigmoid colon	25	0.43	22	0.39	47	0.41
C20	Rectum	192	3.32	103	1.82	295	2.58
C21	Anus & anal canal	11	0.19	11	0.19	22	0.19
C22	Liver	134	2.32	47	0.83	181	1.58
C23	Gall bladder	15	0.26	11	0.19	26	0.23
C24	Other biliary tract	21	0.36	14	0.25	35	0.31
C25	Pancreas	66	1.14	36	0.64	102	0.89
C26	Other ill-defined digestive organs	1	0.02	1	0.02	2	0.02
C30	Nasal cavity	18	0.31	9	0.16	27	0.24
C31	Accessory sinus	34	0.59	28	0.50	62	0.54
C32	Larynx	234	4.04	9	0.16	243	2.12
C33	Trachea	1	0.02	0	0.00	1	0.01
C34	Lung	779	13.46	142	2.51	921	8.05
C37	Thymus	1	0.02	1	0.02	2	0.02
C38	Heart & mediastinum	22	0.38	8	0.14	30	0.26
C40	Bone of limbs	37	0.64	28	0.50	65	0.57

# CANCER EPIDEMIOLOGY & CLINICAL RESEARCH

C41	Other bone	24	0.41	15	0.27	39	0.34
C43	Skin melanoma	29	0.50	28	0.50	57	0.50
C44	Skin other	70	1.21	34	0.60	104	0.91
C47	Peripheral nerves system	1	0.02	0	0.00	1	0.01
C48	Retroperitoneum	15	0.26	11	0.19	26	0.23
C49	Connective tissue	97	1.68	57	1.01	154	1.35
C50	Breast	17	0.29	1610	28.49	1627	14.22
C51	Vulva	0	0.00	6	0.11	6	0.05
C52	Vagina	0	0.00	24	0.42	24	0.21
C53	Cervix uteri	0	0.00	461	8.16	461	4.03
C54	Corpus Uteri	0	0.00	191	3.38	191	1.67
C55	Uterus, nos	0	0.00	26	0.46	26	0.23
C56	Ovary	0	0.00	286	5.06	286	2.50
C57	Other female genital organs	0	0.00	13	0.23	13	0.11
C58	Placenta	0	0.00	1	0.02	1	0.01
C60	Penis	32	0.55	0	0.00	32	0.28
C61	Prostate	198	3.42	0	0.00	198	1.73
C62	Testis	29	0.50	0	0.00	29	0.25
C63	Other genital organs	5	0.09	0	0.00	5	0.04
C64	Kidney	81	1.40	30	0.53	111	0.97
C65	Renal pelvis	2	0.03	1	0.02	3	0.03
C66	Ureter	3	0.05	0	0.00	3	0.03
C67	Urinary bladder	113	1.95	16	0.28	129	1.13
C68	Other urinary organs	1	0.02	2	0.04	3	0.03
C69	Eye	12	0.21	8	0.14	20	0.17
C71	Brain	161	2.78	118	2.09	279	2.44
C72	Spinal cord	7	0.12	5	0.09	12	0.10
C73	Thyroid gland	215	3.72	673	11.91	888	7.76
C74	Adrenal gland	6	0.10	7	0.12	13	0.11
C75	Other endocrine gland	4	0.07	3	0.05	7	0.06
C76	Ill defined sites	5	0.09	4	0.07	9	0.08
C77	Secondary lymphnode	100	1.73	35	0.62	135	1.18
C78	Secondary respiratory & digestive	43	0.74	47	0.83	90	0.79
C79	Secondary Other sites	44	0.76	31	0.55	75	0.66
C80	Primary unknown	39	0.67	29	0.51	68	0.59
C81	Hodgkin's disease	76	1.31	41	0.73	117	1.02
C82	Follicular NHL	37	0.64	36	0.64	73	0.64
C83	Diffuse NHL	166	2.87	86	1.52	252	2.20

# CANCER EPIDEMIOLOGY & CLINICAL RESEARCH C84 T-cell lymphoma 33 0.57 6 0.11

C84	T-cell lymphoma	33	0.57	6	0.11	39	0.34
C85	Other NHL	50	0.86	25	0.44	75	0.66
C90	Multiple myeloma	123	2.13	71	1.26	194	1.70
C91	Leukemia, lymphoid	198	3.42	131	2.32	329	2.88
C92	Leukemia, myeloid	230	3.98	164	2.90	394	3.44
C93	Leukemia, monocytic	37	0.64	25	0.44	62	0.54
C94	Other specified leukaemia	1	0.02	6	0.11	7	0.06
C95	Leukemia, unspecified	25	0.43	22	0.39	47	0.41
C96	Other lymphoid neoplasm	11	0.19	10	0.18	21	0.18
C00-							
C96	Total	5786	100.00	5652	100.00	11438	100.00
C96	<b>Total</b> In-situ	<b>5786</b> 13	<b>100.00</b> 1.89	5652 44	<b>100.00</b> 4.82	<b>11438</b> 57	<b>100.00</b> 3.56
C96							
C96	In-situ	13	1.89	44	4.82	57	3.56
C96	In-situ Borderline malignancy	13 76	1.89 11.03	44 107	4.82 11.72	57 183	3.56 11.42
C96	In-situ Borderline malignancy Benign Tumours	13 76	1.89 11.03	44 107	4.82 11.72	57 183	3.56 11.42
C96	In-situ Borderline malignancy Benign Tumours Non-neoplastic	13 76	1.89 11.03	44 107	4.82 11.72	57 183	3.56 11.42
C96	In-situ Borderline malignancy Benign Tumours Non-neoplastic (include pre-malignant	13 76 79	1.89 11.03 11.47	44 107 226	4.82 11.72 24.75	57 183 305	3.56 11.42 19.04
C96	In-situ Borderline malignancy Benign Tumours Non-neoplastic (include pre-malignant conditions & others)	13 76 79 201	1.89 11.03 11.47 29.17	44 107 226 274	4.82 11.72 24.75	57 183 305 475	3.56 11.42 19.04 29.65

TABLE 37: Population Based Cancer Registry, Thiruvananthapuram Taluk (2008): Age-Adjusted incidence Rate (AAR) per 100,000 persons for ten leading cancer sites

ICD _10 code	Site	Ma	ale	Fema	ile	
		AAR	Rank	AAR	Rank	
C00-06	Oral cavity	12.4	2	3.5	8	
C09-10, C12-14	Pharynx	7.4	3	0.8	> 10	
C15	Esophagus	4.5	7	0.8	> 10	
C16	Stomach	4.1	9	1.6	10	
C32	Larynx	6.9	4	0.8	> 10	
C33- C34	Lung	15.4	1	5.5	6	
C50	Breast	_	_	34.4	1	
C53	Cervix uteri	_	_	7.5	3	
C54	Corpus uteri	_	_	6.2	5	
C56	Ovary	_	_	8.3	2	
C61	Prostate	6.4	5	_	_	
C73	Thyroid	3.7	10	6.5	4	
C81-C85 & C96	Lymphoma	5.8	6	3.3	9	
C91- C95	Leukemia	4.3	8	4.6	7	
	Total	127.4		113.8		

# CANCER EPIDEMIOLOGY & CLINICAL RESEARCH

#### **ACADEMIC ACTIVITIES**

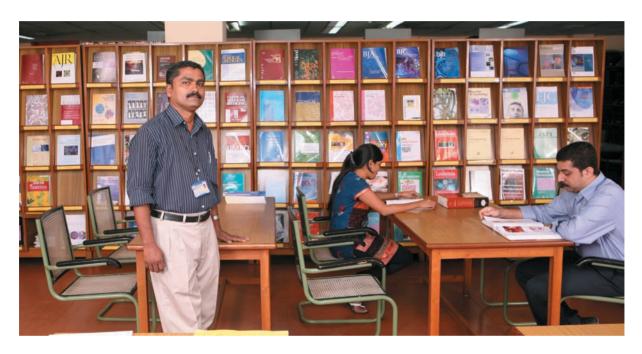
Statistical design and analytical support is provided to research studies undertaken at RCC. The division provided guidance to doctoral students in epidemiology and bio-statistics under the Kerala and Mahatma Gandhi Universities. Mr.B Binukumar, a research scholar associated with the division was awarded Doctoral degree in Statistics by University of Kerala in December 2009. The division provided guidance in doing project work to post graduates in Bio-statistics/ Public Health and five students have completed their project work during the report period.

#### **TABLE 38: Ongoing Doctoral Programmes**

Sl. No.	Research Scholar	Title of Study/University	Guide
1.	Dr. Aleyamma Mathew	Female Breast and Reproductive Tract Cancers in Kerala:	
		Statistical modeling and projections (in Statistics) /	
		Mahatma Gandhi University, Kottayam	Dr. K K Jose
2.	Ms. Manju L	Risk estimates of bladder cancer: multiple logistic	
		regression model / University of Kerala	Dr. Aleyamma Mathew
3.	Ms. Grata Ildaphonsa	Risk factors of kidney cancer: a matched case-control	
		study / University of Kerala	Dr. Aleyamma Mathew
4.	Ms. Sona P. Nair	Performance status and quality of life of ovarian	
		cancer patients / University of Kerala	Dr. Aleyamma Mathew
5.	Ms. Subha R. Nair	Statistical models for estimating probability of developing	
		breast cancer/ University of Kerala	Dr. Aleyamma Mathew
6.	Dr. Jayakrishnan R.	Evaluating the effectiveness of community based tobacco	
		cessation strategies in Thiruvananthapuram district /	
		University of Tampere	Dr. Aleyamma Mathew
7.	Ms. Melbin John	Burden and projection of Cancer in India /	
		University of Tampere	Dr. Aleyamma Mathew



## LIBRARY & INFORMATION SERVICES



#### Vishnu V.

Librarian-In-Charge

Library division continued to act as the knowledge hub of the Centre by providing the best possible Library & Information Services to its specialized user community for meeting the institutional objectives. The division improved its core services and marketed the products through a range of services from traditional to the technology-driven. In addition to its own patrons, the library resources were utilised by more than 400 graduate and postgraduate life science/medical science students and other health professionals from outside the Centre.

#### **ADDITION OF INFORMATION RESOURCES**

Newly acquired books, journals, theses, reprints and other information sources were properly organized and disseminated to reach the right user through timely extension services/intimations.

#### **TABLE 39: Collection development**

Document type	Additions	Total No.
Books, monographs & backvolum	nes 373	11521
Current Journals	5	122
Reprints and reports	194	6026
CD ROMs/DVDs	75	393

Work relating to development of a comprehensive database of 'RCC Publications' incorporating books, chapters in books, articles, conference papers/talks, etc. has been progressing.

#### **ELECTRONIC ACCESS TO JOURNALS**

Provided electronic access to 60 foreign journals available through ScienceDirect, Ovid, Wiley-Interscience, Informaworld, Springer, etc. These titles along with free based journals constitute 99% of the IP based E- journals.

### LIBRARY & INFORMATION SERVICES

#### **TABLE 40: E-Journals**

E-Journals by Origin	IP-Based	Free-based	Total
Foreign	60	8	68
Indian	1	28	29
Total	61	36	97

#### **International Roaming Access**

This new facility, launched in the subscription year of 2010, provided perpetual E-journal access to 11 Wiley-Interscience journals to unlimited number of users from any computer, anywhere in the world.

#### **Journal Usage Statistics**

Usage statistics based on number of downloads/ access showed that, 'Anesthesia & Analgesia' was well ahead in OVID platform and 'International Journal of Radiation Oncology, Biology Physics' followed by 'Oral Oncology' and 'Gynecologic Oncology' topped the list in ScienceDirect platform. Among Wiley- Interscience Journals, 'Journal of Surgical Oncology' followed by 'Head & Neck' toped the list of most consulted titles.

#### E-BOOKS

Complementary web-based full text access was activated for about 15 books that were added in the reference section. Besides, accompanying CD/DVDs of other reference books were also properly organized for wider use.

#### **INFORMATION ALERT SERVICES**

'Library' page of Intranet was updated regularly to supplement the print alerts on current journals contents, other newly arrived sources, forthcoming conferences, and relevant news items from the media. Besides alert services, library also delivered e-content to requested users.

#### **SUPPORT SERVICES**

Audio-visual and photocopying requirements were well supported/coordinated throughout the period. Work was started for the ceiling mount of two LCD systems. A new Dvx based DVD player and a spiral binding machine were also acquired.

The work relating to the publication of Centre's Annual Report for 2008-2009 in English and Hindi was completed and copies were distributed.

Membership in DELNET was renewed for procuring articles in journals that are not being subscribed to by the library.

#### **INTERNSHIP TRAINING AND VISITS**

One M.L.I.Sc. student from Department of Library & Information Science, University of Kerala underwent training and a group of Library Science students and faculty members from Kannur University, Thalassery visited the division.



### INFORMATION SYSTEMS



#### Neelima N.

Systems Manager & Head

The Division has been entrusted with the task of developing, implementing and maintaining the Hospital Information System and associated computer technology. It supported and maintained operational systems and provided training to hospital staff in the use of information technology. The division was placed third in Kerala state e-governance awards 2008 for pioneering applications in telemedicine in the areas of cancer detection and care.

#### **ROUTINE ACTIVITIES**

Maintenance of application, web, mail and proxy servers, administration of oracle database, management of LAN and WAN (includes 1 mbps leased line and VSAT networks), management of data relating to Cancer Care for Life scheme, management of PCs and trouble shooting of computer related problems, administration and maintenance of telemedicine software and equipments, scanning of case sheets and making them viewable for doctors using consult application.

#### **HOSPITAL INFORMATION SYSTEM (HIS)**

HIS is a network of computers, which is used to collect, process and retrieve both patient care activities and administrative activities from various departments.

#### **RCC-INTRANET**

RCC-INTRANET hosts digital library, institutional news service, staff search, personal information of staff like, leave, salary, tax planner, etc. in a downloadable format.

#### **CANCER REGISTRY NETWORK**

The hospital cancer registry and population based cancer registries are fully computerized and online data entry and searching facility were provided on the intranet.

#### OTHER ACTIVITIES

The division provided training to the B.Tech., MCA and B.Sc. (Computer Science) students of various colleges for their final year project work.

## EARLY CANCER DETECTION CENTRE

### (ECDC), ERNAKULAM

#### Latha A.

Cytopathologist

The overall activities of the Early Cancer Detection Centre, Ernakulam during the report period were as follows:

- Daily cancer screening clinic at the ECDC.
- Cancer screening camps in rural and urban areas with assistance from governmental and nongovernmental organizations.
- Cancer awareness programmes.
- Monthly follow up clinics for RCC treated patients.
- Telemedicine facility for cancer patients and awareness classes for public and videoconferencing.
- Cytology and haematology diagnostic services for materials sent from other medical centers and also from ECDC, Palakkad.
- Colposcopy for patients of this Centre as well as from referral centres.

#### TABLE 41: Clinical activities and patient services

Tasks	ECDC	Camps	Total
Persons screened	7650	4354	12004
Cervical smears	3910	1676	5586
Oral smears	347	39	386
Fine needle aspiration cytolog	y 3117	586	3703
Sputum cytology	86	_	86
Colposcopy	10	_	10
Body fluids	195	53	248
Peripheral blood smears	116	3	119
Cancer detection camps	35	_	35
Awareness classes	30	_	30

#### **TABLE 42: Cancers & Precancers detected**

Cases	No.	
Oral cancer	42	
Breast cancer	185	
Cervix cancer	22	
Others	156	
Precancers	53	

## EARLY CANCER DETECTION CENTRE

#### (ECDC), PALAKKAD

#### Chandrika C.C.

Medical Officer

Creating cancer awareness among the public and screening them for warning signals of cancer are the main functions of this ECDC, which is located in the industrial area of Kaniikode. The Centre has extended its services to the tribal areas of Palakkad district such as Anakkal and Parambikulam. There was a marked increase in the referral cases from PHCs and government hospitals. A number of 2219 persons underwent Pap smear screening and 21 persons underwent oral smear screening. The Centre has arrangements with the gynaec OP of district hospital, Palakkad for Pap smear collection and testing. Services were given to 154 cancer patients through quarterly follow up clinics by doctors from RCC. An exhibition on awareness, early detection and treatment of cancer was organized at the Palakkad railway station on 1st March 2010 in connection with Red Ribbon Express.

#### TABLE 43: Clinical activities and patient services

Tasks	Total No.
Patients screened	10634
ECDC (3288)	
Camps (7346)	
Smears collected	2406
ECDC (958)	
Camps (1332)	
District Hospital, Thrissur (116)	
Cancer detection camps	28
Awareness classes	30
Patients referred to RCC	86
Patients attended the Pain Clinic	24
Telemedicine consultations	19
Home visits	14
Exhibitions	9

#### TABLE 44: Cancers & Precancers detected

Cases	No.
Oral cancer	4
Breast cancer	5
Cervix cancer	10
Precancers	23

# NATURAL BACKGROUND RADIATION CANCER REGISTRY

#### (NBRR), KARUNAGAPPALLY

#### Jayalekshmi P.

Lecturer & Officer-in-charge

Natural background radiation cancer registry is an outreach centre of RCC situated in the premises of Community Health Centre, Neendakara in Kollam district. Along with the study to evaluate the health effects of natural radiation present in the sea coast of Karunagappally taluk, Kollam district, a full fledged cancer care unit called Cancer Care Centre has also been functioning for the benefit of the people residing in this area. Radiation epidemiologic studies continuing in this area did not show any excess risk of cancer due to natural radiation so far.

#### **TABLE 45: Clinical activities and patient services**

Particulars	No.
Cancer awareness classes & palliative	
care training programmes (Persons attende	d) 6000
Review clinic	470
Pain clinic	6134
Field clinic	23800
Pap smear screening	9302
FNAC and Scrape (Cytology investigations)	444
Cancer cases detected	15
Thyroid clinic	1156



# 'A' CLINIC (HAEMATOLOGICAL, LYMPHORETICULAR, BONE & SOFT TISSUE SARCOMA)

A' Clinic is responsible for the diagnosis and management of haematological and lymphoreticular malignancies, sarcomas and other solid tumours where intensive chemotherapy is indicated. The clinic conducts outpatient clinics 6 days a week.

#### **CLINICAL PROCEDURES/SERVICES OFFERED**

#### **Patients consulted Patients** No. New cases 1,833 Review cases 25,560 Total 27,393 **Medical Oncology services** High dose chemotherapy 2000 Autologous BMT 20 Allogenic BMT 1 20000 Chemotherapy

Surgical procedures for sarcomas	118
Radiotherapy services	
Conformal Radiotherapy	15
Radical Radiotherapy	132
Palliative Radiotherapy	147

#### **OBSERVERS/TRAINEES: 3**

#### **SALIENT ACHIEVEMENTS/CONTRIBUTIONS**

- Allogenic bone marrow transplantation was performed for the first time in Kerala.
- Autologous bone marrow transplantation following high dose chemotherapy was performed in 20 patients.
- Successfully carried out US FDA inspection for the study PIX 301, which was first of its kind in the State.



# 'B' CLINIC (HEAD & NECK)

'B' Clinic is a multi-disciplinary clinic comprising of Radiation Oncologists, Head and Neck Surgeons, Plastic Surgeons and specialists trained in rehabilitation procedures. Tumor boards were conducted on a weekly basis with participation of Imageology and Pathology divisions. More than 100 Post-graduate students of Oral Medicine, Maxillofacial Surgery, General Surgery and ENT from various institutions in India and abroad underwent training. On the academic front, the clinic has played a major role in organizing the 'India-Singapore International Conference on Head and Neck Cancer' (22-23 January 2010), which included live workshops on IMRT and Surgery. The clinic is an essential part of the two year Fellowship programme in Head & Neck Surgical Oncology offered by the Centre. In the area of screening and early detection, the Trivandrum Oral Cancer Screening (TOCS) programme, a community based cluster randomised trial has provided evidence on the effectiveness of screening in reducing mortality from oral cancer. This is also the first screening programme to show the cost-effectiveness of targeted screening in a limited resource setting.

#### **CLINICAL PROCEDURES/SERVICES OFFERED**

Patients consulted	
Patients	No.
New cases	2408
Review cases	20975
Total	23383

#### Radiotherapy services

Conformal	Radical	Palliative	Brachytherapy
55	1332	250	5

#### Surgical procedures

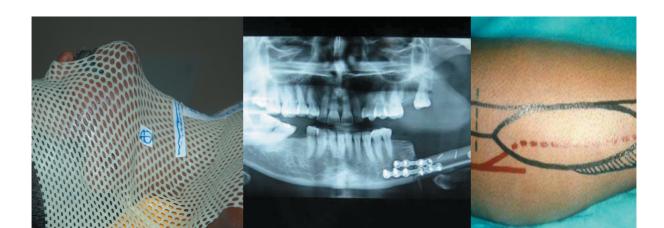
Oral	Laryngo-	Salivary	Others	Reconstructive
cancers	pharyngeal	glands		Procedures
681	32	32	126	269

#### **OBSERVERS, TRAINEES & VISITORS**

Observers	Trainees	Visitors
126	2	6

#### **SALIENT ACHIEVEMENTS/CONTRIBUTIONS**

The Clinic took the lead role to start the 'Medicine Bank' for poor patients through which chemotherapy drugs, IV fluids, antibiotics and other supportive care worth more than 1 lakh rupees per month were provided. The 'Madhana Plus Insurance Scheme' for Maldivian patients was also started by the effort of this clinic, which helped the Centre in drawing patients directly from Maldives to RCC.



# 'C' CLINIC (BREAST & CENTRAL NERVOUS SYSTEM)

'C' clinic caters to patients with malignancies of breasts and those arising in the central nervous system. Over the years the division has made strides in the area of breast conservation surgery and oncoplastic breast surgery. It provided 3-Dimensional Conformal Radiotherapy with planning using ARIA and Precise planning systems and day care chemotherapy services. The clinic works in unison with divisions of Paediatric Oncology and Pain & Palliative Care. Conducted tumor boards in collaboration with the Department of Neurosurgery, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram. Regular training was provided for DNB students of the Centre and other postgraduate students from Medical College, Thiruvananthapuram. A number of pharma driven clinical trials are also going on under the auspices of the clinic.

#### **CLINICAL PROCEDURES/SERVICES OFFERED**

Patients	No.
New cases	2,142
Review cases	31,019
Total	33,161

#### Radiotherapy services

Conformal	Radical	Palliative
250	1200	600

#### Surgical procedures

MRM	BCS	BCS+LD	Others
805	114	46	90

#### **ACADEMIC ACTIVITIES**

Free special clinics of one month duration were conducted in October 2009 as part of Breast Cancer Awareness month. The clinic played a major role in conducting a CME on breast cancers on World Breast Cancer Day (18 October 2009). 658 women underwent breast cancer detection procedures during the month.



## 'D' CLINIC (GYNAEC, GENITO-URINARY & OTHERS)

Patients with gynaecological and urological cancers and cancer of the unknown primary were evaluated, staged and treated in the 'D' clinic. Cancer of uterine cervix is the commonest gynaecological cancer followed by cancer of ovary and endometrium.

Colposcopic evaluation and treatment were provided for patients with suspected early disease (like intraepithelial neoplasia grade 3) of uterine cervix. For patients with invasive disease, Wertheim's hysterectomy or chemo-irradiation was offered based on the stage of disease. The clinic also has vast experience in gynaecological brachytherapy. Among urological cancers, prostate cancer and bladder

cancer were the common cancers. Localized prostate cancers were treated with conformal radiotherapy with or without hormones. Cystectomy with continent procedures were also started during the report period.

#### CLINICAL PROCEDURES/SERVICES OFFERED

Patients consulted	
Patients	No.
New cases	2,115
Review cases	24,142
Total	26,257

#### Radiotherapy services

Conformal Brachytherapy 104 1350

#### Surgical procedures (Gynaec, Uro, Bladder and Skin)

Others
0111010
ry cytoreduction :22
ary cytoreduction :11
section
in
excision
i i

#### **OBSERVERS/TRAINEES: 69**



## 'E' CLINIC (CHEST & GASTRO-INTESTINAL)

'E' Clinic caters to patients with malignancies of lung and of gastro-intestinal tract. The increase in the number of minimally invasive surgeries was the highlight of the current year. More pancreatic cancer surgeries and laparoscopic surgeries were performed when compared to the previous years. Also introduced thoracoscopic surgeries for upper gastro-intestinal tumours and mediastinal tumour biopsies. Incorporation of better pre-operative optimization and ICU protocols have decreased the morbidity rates associated with upper gastro-intestinal surgeries. Tumour boards were also conducted in collaboration with the Department of Surgical Gastroenterology, Medical College, Thiruvananthapuram.

A number of pharma driven clinical trials are also going

on side by side with patient care activities. Training was

also provided to DNB and MD students of Radiotherapy from both the Centre and Medical College, Thiruvananthapuram.

#### **CLINICAL PROCEDURES/SERVICES OFFERED**

#### Patients consulted

Patients	No.
New cases	3023
Review cases	24312
Total	27335

#### Radiotherapy services

Conformal	Radical	Palliative	Brachytherapy
36	425	840	22

#### Surgical procedures

Oesophagus	Stomach	Pancreas	Colon	Rectum
49	65	6	40	127



## 'F' CLINIC (PAEDIATRIC ONCOLOGY)

'F' Clinic caters to childhood malignancies from the newborn period to 14 years of age. Among the new cases reported, acute lymphoblastic leukaemia and brain tumour constituted the most common malignancies. The regular running of the Clinic has been supported by the Indian Paediatric Oncology Initiative (IPOI) of Jiv Daya Foundation, for improvement of quality care. The team is comprised of 2 doctors, 3 staff nurses, 1 data entry operator and 1 social worker. IPOI has helped to improve the services in areas of blood collection, parent counseling, patient tracking, etc. The 'Cancer Suraksha Scheme' of the Government of Kerala has enabled in providing free chemotherapy and supportive care to the vast majority of patients.

#### **CLINICAL PROCEDURES/SERVICES OFFERED**

#### Patients consulted

Patients	No.
New cases	609
Review cases	20421
Total	21030

#### Surgical procedures

BROVIAC

Insertions-70

#### **TRAINING**

Dr. Urmila, Assistant Professor, Dept. of Paediatrics, Pariyaram Medical College, Kannur was given 2 months training in Paediatric Oncology.



## 'G' CLINIC (THYROID)

The 'G' clinic caters predominantly to patients with thyroid cancers and thyrotoxicosis, who are referred for further management after initial surgery.

#### **CLINICAL PROCEDURES/SERVICES OFFERED**

The Clinic provided comprehensive diagnostic and therapeutic facilities for various thyroid disorders and patients from various parts of Kerala, South Tamil Nadu and abroad are utilizing the services.

Various services include gamma camera imaging, thyroid ultrasonography, in-vitro assays, radioiodine therapy and bone pain palliation using Samarium.

#### **Patients consulted**

Patients	No.
New cases	910
Review cases	9198
Total	10108

26

#### **Nuclear Medicine services**

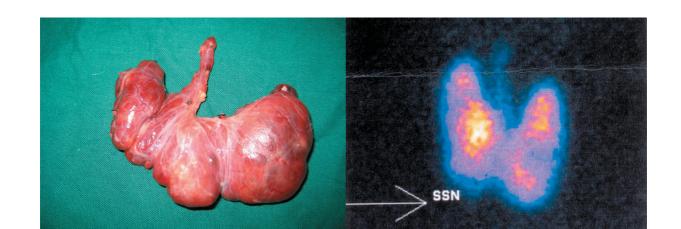
Immunoassays	SPECT Gamma camera	Thyroid Ultrasound	Radio-iodine therapy	Samarium
25867	6564	265	864	4
Surgical procedures				
Completion Thyroidector	ny Total Thyroidectomy	Neck dissection	Hemithyroidectomy	

114

#### Radiotherapy services

Conformal + Palliative

111



# FUNCTIONS, WORKSHOPS & CONFERENCES ORGANIZED

Sl. No.	Name of Programme	Date
1	Foundation stone laying of the new ten storey building	
	by Sri. V.S. Achuthanandan, Hon'ble Chief Minister of Kerala	
	and Chairman, Governing Body, RCC	2 March 2010
2	Workshop for Hospital Employees on early detection of	
	common cancers on World Cancer Day	4 February 2010
3	India-Singapore International Conference on Head and	
	Neck Cancer, including live workshops on IMRT and Surgery	22-23 January 2010
4	Workshop on Oral Precancers and Cancers	
	on National Cancer Day	7 November 2009
5	Pink Day CME on Breast Cancers as part of	
	Breast Cancer Awareness month	18 October 2009
6	World Palliative Care Day celebrations and CME.	10 October 2009
7	CME on Medical Record Science	10 October 2009
8	Advocacy Workshop on Effective Enforcement of	
	Tobacco Control Laws in Alappuzha District	29 July 2009
9	Workshop on 'Tobacco Control Measures' on	
	World No Tobacco Day	31 May 2009

# HONOURS, AWARDS AND RECOGNITIONS RECEIVED BY STAFF AND STUDENTS

**Dr. Aleyamma Mathew,** Sub-editor, 'Asian Pacific Journal of Cancer Prevention'.

**Dr. Anitha Mathews,** awarded UICC-ICRETT Fellowship in Neuropathology under Dr. B.W.Schithauer, Mayo Clinic, Rochester, USA. August – September 2009.

**Dr. Balagopal P.G.,** received Science Literature Award instituted by Kerala State Council for Science, Technology and Environment.

**Dr. Chandramohan K.,** awarded Baroda - GCRI- IASO Travelling Minimal Invasive Surgery Fellowship at Gems Hospital, Coimbatore, 1-30 August 2009.

**Dr. Cherian M. Koshy,** was nominated as one of the advisory members constituted for drafting standard operating procedures for morphine usage for the State.

**Dr. Cherian M. Koshy,** was one of the three members invited from India by the government of Ethiopia to conduct a pain workshop and initiate palliative care services at Addis Ababa, July 2009.

**Dr. Jayasree K.,** nominated as Chairperson of Trivandrum city branch of Indian Association of Pathologists & Microbiologists.

Lakshmi S., Research Scholar, received Young Scientist Award at the 22<sup>nd</sup> Kerala Science Congress, Peechi, Thrissur, 28-31 January 2010.

**Dr. Madhu Muralee**, Best paper award for the paper 'Rectal carcinoma: is surgery on its way out?', in the 3rd Annual Conference of Association of Surgical Gastroenterologists of Kerala, Thiruvananthapuram, 24 January 2010.

**Dr. Parameswaran S.,** Vice-President, Breast Cancer Foundation of India.

**Prabha Pillai,** Research Scholar, received Shri. K.N. Narasimhaiah Award for best original paper in cancer biology.

**Dr. Prakash N.P.,** awarded NCI fellowship for BMT training at Fred Hutchinson Cancer Centre, Seattle, USA, March 2009- August 2009.

Praveen Kumar B.R., Research Scholar, received Young Scientist Award at the 22<sup>nd</sup> Kerala Science Congress, Peechi, Thrissur, 28-31 January 2010.

Sangeetha Vijay, Research Scholar, received Best poster award at the 22<sup>nd</sup> Kerala Science Congress, Peechi, Thrissur, 28-31 January 2010.

# CONFERENCES, TRAINING PROGRAMMES AND MEETINGS ATTENDED & PAPERS PRESENTED BY STAFF & STUDENTS INTERNATIONAL

Sl. No.	Participant/Speaker	Conference/Meeting	Date & Venue	Paper presented/ Participant's Status
01.	Dr. Aleyamma Mathew	20 <sup>th</sup> Asia Pacific Cancer Conference.	12-14 Nov 2009, Tsukuba, Japan.	'Asian co-operation for cancer registration and epidemiology in India'.
02.	Dr. Arun Peter Mathew	International Conference on 'How to do research on therapeutic interventions?'	27 – 31 July 2009, Oxford, UK	Participant
03.	Dr. Balagopal P.G.	2 <sup>nd</sup> World Congress of the International Academy of Oral Oncology (IAOO).	8-11 July 2009, Toronto, Canada	'Level 2B involvement in head and neck cancers'.
04.	Dr. Cherian M. Koshy	Livestrong Global Cancer Summit.	24-26 Aug 2009, Dublin, Ireland.	Participant
05.	Dr. Cherian M. Koshy	8 <sup>th</sup> Biennial Palliative Care Congress.	10-13 Mar 2010, Bournemouth, England.	'Tele-clinic in palliative care services: unique opportunity window in supportive care and cancer control'.
06.	Dr. Francis V. James, Dr. Raghu Ram K. Nair	American Society for Therapeutic Radiology & Oncology Annual meeting.	1-5 Nov 2009, Chicago.	Participants
07.	Dr. Francis V. James	Oxford Randomized Controlled Trial Course.	21-25 Sept 2009, Oxford, UK.	Participant
08.	Dr. Geetha N., Dr. Lali V.S.	Prelude Investigators' Meeting.	24–25 Jul 2009, Tokyo, Japan.	Participants
09.	Dr. Jayalekshmi P.	Annual Conference of Asia Cohort Consortium.	1-3 Dec 2009, Tokyo, Japan.	'Natural background radiation studies, Karunagappally cohort, Kerala, India'.
10.	Dr. Kainikkal C.T.	Radiological Basis of Cancer Therapy	Feb 2010, Manchester, UK.	Participant
11.	Dr. Mirsa Hussain B.	San Antonio Breast Cancer Conference.	9-13 Dec 2009, Texas, USA.	Participant
12.	Dr. Paul Sebastian	2 <sup>nd</sup> World Congress of the International Academy of Oral Oncology (IAOO).	8-11 July 2009, Toronto, Canada	'Tongue carcinoma in young adults: A retrospective review of treatment and outcome in 144 patients'.

13.	Dr. Ramadas K.	Second World Congress of the International Academy of Oral Oncology (IAOO).	8–11 July 2009, Toronto, Canada	1. 'Oral screening reduces mortality in high risk indiviuals: Trivandrum experience'.  2. 'Tumor progression in the oral cavity: The significance of genetic polymorphisms in CYP1A1, GSTM1 and XRCC1 in a South Indian population'.  Participant  Paper presented/ Talk delivered / Participant's Status  Talk: 1. 'Trivandrum Cancer Registry: summary of results'.  2. 'Pattern of care and survival of female breast, cervix and head and neck cancers'.  Talk: 'Overview of experimental study designs and clinical trials'.  Talk: 'Environmental factors of cancer'.  Talk: 'Bio-statistics in cancer research'.  Paper: 'Extra pleural malignant solitary fibrous tumour'.  Paper: 'Rhabdomyosarcoma of the head and neck: A five year study'.  Participant
				the oral cavity: The significance of genetic polymorphisms in CYP1A1, GSTM1 and XRCC1 in a South Indian
14.	Dr. Ramadas K.	ESTRO teaching Course on Image – Guided Radiotherapy in Clinical Practice.	6-10 Dec 2009, Brussels, Belgium,	Participant
		NATIONAL		
Sl. No.	Participant/Speaker	Conference/Meeting	Date & Venue	Talk delivered /
01.	Dr. Aleyamma Mathew	25 <sup>th</sup> National Cancer Registry Programme.	1-2 Dec 2009, Bangalore	Cancer Registry:
				survival of female breast, cervix and head and neck
02.	Dr. Aleyamma Mathew	Workshop on Research Methodology.	27 Aug 2009, LAICO-Aravind Eye Care System, Madurai	experimental study designs and clinical
03.	Dr. Aleyamma Mathew	UGC sponsored workshop on Environmental Science.	12 Sept 2009, Academic Staff College, Thrissur	
04.	Dr. Aleyamma Mathew	Seminar on Bio-statistics.	29 Oct 2009, St. Thomas College, Pala	
05.	Dr. Anila K.R.	6 <sup>th</sup> Asia-Pacific Congress of International Academy of Pathology.	20-23 Aug 2009, Kochi.	malignant solitary
06.	Dr. Anitha Mathews	6 <sup>th</sup> Asia- Pacific Congress of International Academy of Pathology.	20-23 Aug 2009, Kochi.	'Rhabdomyosarcoma of the head and neck:
07.	Dr. Anitha Mathews, Dr. Thara Somanathan	International Pathology Update 2010	19 - 21 Feb 2010, PGIMER, Chandigarh.	Participant
08.	Mr. Aravind S.R.	Workshop on Real Time PCR and Confocal Microscopy.	11-13 Mar 2010, Kochi	Participant
09.	Mr. Aravind S.R.	3 <sup>rd</sup> International Symposium on Translational Cancer Research.	18-21 Dec 2009, Bhubaneshwar	Paper: 'Antitumour effect of polysaccharide PST001 against Daltons lymphoma ascites and Ehrlich ascites carcinoma cells'.

10.	Dr. Aswin Kumar	15 <sup>th</sup> World Congress on Gestational Trophoblastic Diseases.	12-15 Nov 2009, Kochi	Talk: 'High-risk choriocarcinoma: A single institution experience'.
11.	Ms. Biba Vikas	3 <sup>rd</sup> International Symposium on Translational Cancer Research.	18-21 Dec 2009, Bhubaneshwar	Paper: 'Evaluation of cytotoxic properties of an extract from <i>Annona squamosa</i> fruit pericarp'.
12.	Mr. Binu K.A.	22 <sup>nd</sup> Kerala Science Congress.	28-31 Jan 2010, KFRI, Peechi	Paper: 'Expression analysis of p160 steroid receptor coactivators (SRC) family members in breast cancer'.
13.	Mr. Binu K.A.	29 <sup>th</sup> Annual Convention of Indian Association of Cancer Research.	20-23 Feb 2010, AIMS, Kochi.	Paper: 'Expression analysis of steroid receptor coregulators in breast cancer: correlation with ERá, ERâ and PR
14.	Dr. Chandramohan K.	Laparoscopic Oncology workshop.	18-19 Apr 2009, Bangalore	Participant
15.	Dr. Chandramohan K.	Laparoscopic Training	17-18 July 2009, Chennai	Participant
16.	Dr. Chandramohan K.	NATCON IASO 2009: National Conference of the Indian Association of Surgical Oncologists.	17-20 Sept 2009, Kolkatta	Participant
17.	Dr. Chandramohan K.	AFCP & ACRISON: Congress of Asian Federation of Coloproctology.	25-27 Sept 2009, Goa	Participant
18.	Dr. Chandramohan K.	ASICON 2009: 67 <sup>th</sup> Annual Conference of the Association of Surgeons of India.	25-30 Dec 2009, Coimbatore	Paper: 'Post chemo RT rectal cancers with no residual disease: Is surgery overkill?'.
19.	Dr. Chandramohan K.	Pink Day CME: Basics of Breast Cancer: What you need to know?	18 Oct 2009, Thiruvananthapuram	Organizing Secretary
20.	Dr. Chandramohan K.	SELSICON 2009: 2nd International Live Multispeciality Laparoscopic Surgery Workshop cum Conference of the Society of Endoscopic and Laparoscopic Surgeons of India.	24-25 Oct 2009, Agra	Participant
21.	Ms. Chandrika P. Ms. Binu O., Ms. Sindhumole L.K., Ms. Santhirani Ms. Arya Sreedhar Ms. Ragi R., Ms. Sreeja S., Ms. Sheeba P. Varghese, MS. Sandhya V. Nair	HIV/AIDS and ART Training for Nurses under Global Fund to Fight AIDS, Tuberculosis and Malaria.	5 days each in June, Jul, Aug, Sept, Nov, Dec 2009 and Feb & Mar 2010, Govt. College of Nursing Thiruvananthapuram	Participants I,

22.	Mr.Christo Rajan	3 <sup>rd</sup> International Symposium on Translational Cancer Research.	18-21 Dec 2009, Bhubaneshwar	Paper: 'Identification of MicroRNA signatures in oral carcinoma'.
23.	Ms. Dhanya G. S.	3 <sup>rd</sup> International Symposium on Translational Cancer Research.	18-21 Dec 2009, Bhubaneshwar	Paper: 'Induction of apoptosis by an active extract from <i>Solanum trilobatum</i> L.'
24.	Ms. Dhanya G. S	22 <sup>nd</sup> Kerala Science Congress.	28-31 Jan 2010, KFRI, Peechi	Paper: 'Apoptotic evaluation of the cytotoxic principles from Solanum trilobatum L'.
25.	Dr. Francis V. James, Dr Beela Sarah Mathew, Dr. Aswin Kumar	31st Annual Conference of the Association of Radiation Oncologists of India.	26-29 Nov 2009, Hyderabad	Participants
26.	Dr.Geetha N.	Marrow Donor Registries in India.	11 Apr 2009, Mumbai	Participant
27.	Mr. Giri Purushothaman	Indo-US Advanced Clinical Engineering Workshop.	5-10 Oct 2009, Thiruvananthapuram	Participant
28	Dr. Hariharan S.	International symposium on Role of Genomics in Clinical Practice & 35 <sup>th</sup> Annual conference of the Indian Society of Human Genetics.	6-8 Mar 2010, Lucknow	Paper: 'Diagnostic and prognostic implications of conventional cytogenetics'.
29.	Dr. Jayasree K.	6 <sup>th</sup> Asia- Pacific Congress of International Academy of Pathology.	20-23 Aug 2009, Kochi.	Papers: 1. 'Mucosal malignant melanoma of head and neck region: a five year study'
				<ol><li>'Malignancy arising in xeroderma pigmentosum: Report of three cases'.</li></ol>
30.	Dr. Jayasree K.	Calicut Pathology Alumni Annual meeting.	Dec 2009, Calicut	Talk: 'Pathology of bone tumour'.
31.	Dr.Jayasree K.	2 <sup>nd</sup> Annual CME on Bone Tumours organized by the Bone Cancer Foundation under the auspices of the Kerala Orthopaedic Association.	21 Mar 2010, Thiruvananthapuram	Talk: 'Challenges in osteosarcoma pathology'.
32.	Dr. Jayasree K., Dr. Rekha A. Nair	Paediatric Oncology CME 2010	6-7 Feb 2010, MIMS, Calicut	Faculties
33.	Dr. Jayasree K., Dr. Preethi T.R.	Workshop on 'Bedside Teaching, Research Methods and Evaluation for Consultants' conducted by National Board of Examinations, Ministry of Health and Family Welfare, Govt. of India.	July 2009, Command Hospital, Bangalore	Participants
34.	Dr. Jiji V.	National CME on Feminine Ultrasound Imaging	11 Oct 2009, Thiruvananthapuram	Participant
35.	Dr. Kainikkal C.T.	Evidence based management of urological malignancies.	26-28 Feb 2010, Tata Memorial Hospital, Mumbai	Participant

36.	Dr. Kainikkal C.T.	RapidArc Radiation Technology Symposium.	2-3 Oct 2009, Hyderabad	Participant
37.	Dr.Kurien Cherian	CME on Laparoscopic Surgery.	3-5 Sept 2009, Chennai	Participant
38.	Dr. Kusumakumary P.	International Conference on oncology.	23 -26 Apr 2009, Kottayam	Talk: 'Rhabdomyosarcoma: the Indian scenario'.
39.	Dr. Kusumakumary P.	Second Annual CME on Bone Tumours organized by the Bone Cancer Foundation under the auspices of the Kerala Orthopaedic Association.	21 Mar 2010, Thiruvananthapuram	Talk: 'Osteosarcoma: recent advances'.
40.	Dr.Kusumakumary P.	CME on Cytogenetics in Haematological Malignancy: Genetics in Paediatric Practice.	18-19 Jul 2009, Thiruvananthapuram	Talk: 'Cytogenetics in haematological malignancy'.
41.	Dr.Kusumakumary P.	CME on Recent Advances in Leukaemia.	8 Aug 2009, AIMS, Kochi	Talk: 'Recent advances in acute leukaemias'.
42.	Dr.Kusumakumary P.	13 <sup>th</sup> Annual National Conference of Paediatric Haemato-oncology chapter.	Nov 2009, Chandigarh	Chaired a session
43.	Dr.Kusumakumary P.	IPOI meeting on Impact of Neuro-oncology Programme.	3 - 4 Feb 2010, New Delhi	Participant
44.	Ms. Lakshmi S.	3 <sup>rd</sup> International Symposium on Translational Cancer Research.	18-21 Dec 2009, Bhubaneshwar	Paper: 'Antitumour effects of a sesquiterpene isolated from <i>Curcuma zedoaria</i> on murine lymphoma cells'.
45.	Ms. Lakshmi S	22 <sup>nd</sup> Kerala Science Congress.	28-31 Jan 2010, KFRI, Peechi	Paper: 'Antitumour potency of 5,7-dihydroxyflavone, a bioactive compound isolated from <i>Alpinia galanga</i> L'.
46.	Ms. Lakshmi S., Ms. Sreeja R.	29 <sup>th</sup> Annual Convention of Indian Association of Cancer Research.	20-23 Feb 2010, AIMS, Kochi	Participants
47.	Mr.Lal K. Nair	13 <sup>th</sup> National Conference of Association of Radiation Therapy Technologists of India.	7-8 Nov 2009, PGIMER, Chandigarh	Paper: 'Determination of effective SSD for electron beams using various applicators'.
48.	Dr. Latha A.	International CME on pathology.	22-24 Aug 2009, Kochi	Participant
49.	Dr. Madhu Muralee	KASICON 2009: Annual Conference of Association of Surgeons of India (Kerala Chapter).	8-9 May 2009, Kozhikkode	Participant
50.	Dr. Madhu Muralee, Dr. Arun Peter Mathew	EBM 2010: Evidence Based Management of cancers.	26-28 Feb 2010, Mumbai	Participants
51.	Dr. Madhu Muralee	Association of Surgeons of India Peripheral meet.	13-14 Feb 2010, Thiruvananthapuram	Participant
52.	Dr. Madhu Muralee	3 <sup>rd</sup> Annual Conference of Association of Surgical Gastroenterologists of Kerala.	24 Jan 2010, Thiruvananthapuram	Paper: 'Rectal carcinoma: Is surgery on its way out?'
53.	Dr. Madhu Muralee	Pink Day CME: Basics of Breast Cancer: What you need to know?	18 Oct 2009, Thiruvananthapuram	Talk: 'Ductal carcinoma in-situ'.
54.	Dr. Madhu Muralee	ASICON 2009: 67 <sup>th</sup> Annual Conference of the Association of Surgeons of India.	25-30 Dec 2009, Coimbatore	Paper: 'Breast biopsy revisited'.

55.	Dr. Mallika Balakrishnan, Dr. Sudha P.	25 <sup>th</sup> South zone & 18 <sup>th</sup> AP State Conference of the Indian Society of Anaesthesiology	11-13 Sep 2009, Hyderabad	Participants
56.	Mr. Manu M. Joseph	3rd International Symposium on Translational Cancer Research	18-21 Dec 2009, Bhubaneshwar	Paper: 'Polysaccharide PSP001 as a promising anticancer and antioxidant compound'.
57.	Mr. Manu M. Joseph	National seminar on oxidative stress in health and diseases	18-20 Mar 2010, Thiruvananthapuram	Paper: 'Antioxidant polysaccharide PSP001 as a promising anticancer and immunomodulatory compound'.
58.	Dr.Mary Thomas	IMA, Onco- Anaesthesia Forum	11 Oct 2009, Kochi	Talk: 'Minimizing problems in one lung anesthesia'
59.	Dr.Nalina Kumari K.R.	ISCON 2010: India-Singapore International conference on Head and Neck Cancer	22 –23 Jan 2010, Thiruvananthapuram	Paper: 'Prevention of radiation- induced dental problems with neutral sodium fluoride gel and sodium fluoride mouth wash: a pilot study'.
60.	Ms. Neelima N.	Three day workshop on RTIA, policies and procedures	28-30 May 2009, Bhubaneshwar	Participant
61.	Dr.Nileena Nayak	64 <sup>th</sup> IAPM Kerala chapter meeting	13 Feb 2010, Amala Institute of Medical Sciences, Thrissur.	Paper: 'Diagnosis of non-Hodgkin lymphoma on effusion cytology'.
62.	Dr.Nileena Nayak	'Metrocyte': CME in Cytology, organised by Tamil Nadu and Pondicherry Chapter of IAPM	9 Jan 2010, PSG Medical College, Coimbatore, Tamil Nadu.	Talk: 'Effusion cytology: Interpretation of morphology and ancillary tests'.
63.	Dr.S.Parameswaran	Annual National Conference of Breast Cancer Foundation of India	7-8 Mar 2010, Lucknow	Participant
64.	Dr. Paul Sebastian	KASICON 2009: Annual Conference of Association of Surgeons of India (Kerala chapter)	8-9 May 2009, Kozhikkode.	Talk: 'Salivary gland neoplasms'.
65.	Dr. Paul Sebastian	Annual Conference of Federation of Head and Neck Oncologic Societies	24 – 26 Oct 2009, Kochi.	Participant
66.	Dr. Paul Sebastian	International Conference on Multidisciplinary Management of Common Cancers	16 – 20 Mar 2009, Kottayam.	Talk: 'Surgical techniques and local control in head and neck cancer'.
67.	Dr. Paul Sebastian	Head and Neck Oncology meeting	29 – 30 Jan 2010, Mumbai.	Panel discussion on 'Salvage surgery'.
68.	Ms.Prabha Pillai	National Conference on Biotechnology for Human Development, Society for Biotechnologists India	27-28 Nov 2009, VIT University, Vellore.	Paper: 'Activation of Stat3 in breast cancer: Association with target gene cyclin D1 and clinicopathological factors'.

69.	Ms. Prabha Pillai	29 <sup>th</sup> Annual Convention of Indian Association of Cancer Research.	20-23 Feb 2010, AIMS, Kochi.	Paper: 'Activation of STAT3 in breast cancer:
				association with cell proliferation and survival'.
70.	Mr. Praveenkumar BR	22 <sup>nd</sup> Kerala Science Congress.	28-31 Jan 2010, KFRI, Peechi	Paper: 'Germline hMLH1 mutations in Indian colorectal cancer patients with suspected Lynch syndrome'.
71.	Dr.Preethi Sara George	25 <sup>th</sup> National Cancer Registry Programme.	1-2 Dec 2009, Bangalore	Participant
72.	Dr.Preethi T.R.	National Cancer Awareness Day Workshop on Oral Precancers and Cancers.	7 Nov 2009, Thiruvananthapuram	Talk: 'Role of cytology in oral cancer'.
73.	Dr.Preethi T.R.	39 <sup>th</sup> Annual Conference of Indian Academy of Cytologists.	12-15 Nov 2009, PGIMER, Chandigarh.	Paper: 'Typing of malignant small round cell tumours by fine needle aspiration cytology'.
74.	Dr.Preethi T.R., Dr.Sindhu Nair P.	64 <sup>th</sup> IAPM Kerala chapter meeting.	13 Feb 2010, Amala Institute of Medical Sciences, Thrissur.	Participants
75.	Dr.Rachel Cherian Koshy	CME on choosing the right antibiotic in an era of antibiotic resistance.	25 Apr 2009, Chennai.	Participant
76.	Dr.Rachel Cherian Koshy	CME on Update on Trauma Critical Care.	10 May 2009, Coimbatore	Participant
77.	Dr.Rachel Cherian Koshy	CME on Recent advances in Paediatric Anaesthesia.	20-23 Feb 2010, Bangalore	Participant
78.	Dr.Rachel Cherian Koshy	IMA, Onco- Anaesthesia Forum.	11 Oct 2009, Kochi	Talk: 'Cancer and the anaesthesiologist'.
79.	Dr. Rachel Cherian Koshy, Dr. Sudha P.	CME on Hospital Administration organized by Federation of Hospital Administrators, Kerala Chapter and SCTIMST.	7 Apr 2009, Thiruvananthapuram	Participants
80.	Dr. Raghu Ram K. Nair	Workshop on Quality Assurance and Radiation Safety in Diagnostic Imaging.	27 Jan & 27 Mar 2010, Thiruvananthapuram	Talk: 'Radiation protection: new concepts'.
81.	Dr. Raghu Ram K. Nair	'Jyothirgamaya': Workshop on Ultrasound.	11 Oct 2009, Thiruvananthapuram	Talk: 'A veil of safety: Safety aspects of diagnostic ultrasound'.
82.	Dr. Raghu Ram K. Nair, Dr. Raghukumar P.	International Conference on Medical Physics.	22-25 Nov 2009, Hyderabad	Chaired sessions
83.	Mr.Rajesh P.R	13 <sup>th</sup> National Conference of Association of Radiation Therapy Technologists of India.	7-8 Nov 2009, PGIMER, Chandigarh	Paper: 'Quality assurance of multileaf collimator'.
84.	Dr. Rajesh R. Chandran	One week training programme on Blood Banking for doctors.	22-27 Mar 2010, Thiruvananthapuram	Participant

85.	Dr. Ramachandran K.	Advances in Maxillofacial Imaging: Exploring new realms.	31 Oct 2009, Govt. Dental College, Thiruvananthapuram	Talk: 'Computed tomography in dentistry'.
86.	Dr. Ramachandran K.	22 <sup>nd</sup> State Conference of Kerala Govt. Radiographers Association.	12 Dec 2009, Thiruvananthapuram	Talk: 'Present day imaging'.
87.	Dr. Ramadas K.	22 <sup>nd</sup> ICON Meet: Commitment to Quality Cancer Research.	20-21 Feb 2010, Kolkata	Faculty
88.	Dr. Ramadas K.	ISCON 2010: India-Singapore International conference on Head and Neck Cancer.	22-23 Jan 2010, Thiruvananthapuram	Paper: 'Recent advances in targeted therapy in head and neck cancer'
89.	Dr. Ramadas K.	National Cancer Awareness Day Workshop on Oral Precancers and Cancers.	7 Nov 2009, Thiruvananthapuram	Paper: 'Oral precancers and cancers'.
90.	Dr. Ramadas K.	9 <sup>th</sup> Annual Meeting of the Federation of the Head & Neck Oncologic Societies.	24-26 Oct 2009, Kochi	Paper: 'Cost- effectiveness of oral cancer screening programmes'.
91.	Dr. Ramadas K.	International Conference on Multidisciplinary management of Common Cancers.	23-26 Apr 2009, Kottayam	Faculty
92.	Dr. Raveendran Pillai K.	3 <sup>rd</sup> International Symposium on Translational Cancer Research.	18-21 Dec 2009, Bhuvaneswar, Orissa.	Paper: 'Significance of psammoma bodies in FNAC of breast: A clinicopathological study of 30 cases'.
93.	Dr. Rekha A. Nair	64 <sup>th</sup> IAPM Kerala chapter meeting.	13 Feb 2010, Amala Institute of Medical Sciences, Thrissur.	Paper: 'Immunohistochemical markers of diffuse large B cell lymphomas & its prognostic predictive validity'. (Best Paper Award)
94.	Dr. Rekha A. Nair	Seminar on College of American Pathologist Laboratory Accreditation Programme.	1 Aug 2009, Chennai.	Participant
95.	Dr. Rekha A. Nair	6 <sup>th</sup> Asia- Pacific Congress of International Academy of Pathology.	20-23 Aug 2009, Kochi.	'Non-Hodgkin lymphoma of ocular adnexae: Analysis of 53 cases with review of literature'.
96.	Dr. Rekha A. Nair	Annual conference of Indian Association of Pathologists and Microbiologists.	18-21 Dec 2009, Kolkata.	Faculty
97.	Dr. Rekha A. Nair	Advanced TCS Flow Cytometry workshop on Haematological malignancies at BD training centre.	29 Mar - 1 Apr 2010, New Delhi.	Participant

98.	Dr. Rema P.	Conference on Gynaecological malignancies: Revisiting the arena.	20 Sept 2009, Malabar Cancer Centre, Thalassery	Talk: 1.'Systematic approach to gynaecological cancer'. 2. 'Gynaecologic cancers in pregnancy'.
99.	Dr. Rema P., Dr. Suchetha S.	Dakshin 2009: Clinical decision making in obstetrics and gynaecology and workshop on vaginal surgery.	31 July - 2 Aug 2009, Thiruvananthapuram	Participants
100.	Mr. Saji S. Nair	National workshop on Intellectual Property Rights in the Knowledge Economy, organised by Kerala State Council for Science, Technology and Environment.	12 June 2009. Thiruvananthapuram	Participant
101.	Ms. Sangeetha Vijay	International symposium on Role of Genomics in Clinical Practice & 35 <sup>th</sup> Annual conference of the Indian Society of Human Genetics.	6-8 Mar 2010, Lucknow	Paper: 'Haematological and cytogenetic response studies of imatinib mesylate in CML patients: A preliminary report from Kerala'.
102.	Ms. Sangeetha Vijay	22 <sup>nd</sup> Kerala Science Congress.	28-31 Jan 2010, KFRI, Peechi	Paper: 'Conventional cytogenetics: Simple and reliable method for the detection of cytogenetic clonality in chronic myeloid leukaemia patient'.
103.	Ms. Santhi S.	International symposium on Role of Genomics in Clinical Practice & 35 <sup>th</sup> Annual conference of the Indian Society of Human Genetics.	6-8 Mar 2010, Lucknow	Paper: 'Prognostic stratification of acute myeloid leukaemia patients using conventional cytogenetics'.
104.	Ms. Santhi S.	22 <sup>nd</sup> Kerala Science Congress.	28-31 Jan 2010, KFRI, Peechi	Paper: 'Importance of cytogenetics and molecular studies in acute myeloid leukaemia patients'.
105.	Ms. Sheeja Varghese	National Seminar on Oxidative stress in health and diseases.	18-20 Mar 2010, Thiruvananthapuram	Paper: 'A novel polysaccharide PSM001 as a potential antioxidant and immunomodulatory compound'.
106.	Mr. Sherif J.S.	13 <sup>th</sup> National Conference of Association of Radiation Therapy Technologists of India.	7-8 Nov 2009, PGIMER, Chandigarh	Paper: 'Evaluation of a flat panel simulator'.
107.	Ms. Sindhu G.S.	One day workshop on 'Stress-Stop, Drop, Roll out for nurse'.	30 Jan 2010, Govt. College of Nursing, Thiruvananthapuram	Participant

108.	Dr. Sindhu Nair P.	39 <sup>th</sup> Annual Conference of Indian Academy of Cytologists.	12-15 Nov 2009, PGIMER, Chandigarh.	Paper: 'Langerhans cell histiocytosis presenting with hemophagocytosis'.
109.	Ms. Sindhumole L.K		26 Oct 2009, Srinarayana College of Nursing,Varkala.	Talk: 'Nursing management of patients with haematopoietic stem cell transplantation'
110.	Ms. Sivakumari	Certificate Course in Chemotherapy Administration.	22 Feb – 6 Mar 2010, Tata Memorial Hospital, Mumbai	Participant
111.	Ms. Sreeja R.	National Conference on Biotechnology for Human Development, Society for Biotechnologists India.	27-28 Nov 2009, VIT University, Vellore.	Participant
112.	Dr. Sreekumar A.	7 <sup>th</sup> Annual Conference of Association of Nuclear Medicine Physicians of India & 15 <sup>th</sup> Annual conference of the Southern chapter of Society of Nuclear Medicine (India).	18-20 Sep 2009, Bangalore	Participant
113.	Dr. Sreekumar A.	41st Annual conference of the Society of Nuclear Medicine (India).	3-6 Dec 2009, Jaipur	Participant
114.	Ms. Sreelekha R.	Workshop on Emergency Nursing.	3 Aug 2009, Govt. School of Nursing, General Hospital, Thiruvananthapuram	Talk: 'Modern trends in nursing practice'
115.	Dr. Suchetha S.	Conference on Gynaecological malignancies: Revisiting the arena.	20 Sept. 2009, Malabar Cancer Centre, Thalassery	Talk: 'Screening in gynaecological cancers'.
116.	Dr. K. Sujathan	3 <sup>rd</sup> International Symposium on Translational Cancer Research	18-21 Dec 2009, Bhuvaneswar, Orissa.	Paper: 'Predictors of axillary lymph node metastasis in women with breast cancer'.
117.	Dr. K.Sujathan	39 <sup>th</sup> Annual Conference of Indian Academy of Cytologists.	12-15 Nov 2009, PGIMER, Chandigarh.	Participant
118.	Dr. Sujathan K.	97th Indian Science Congress.	2-10 Jan 2010, Thiruvananthapuram	Participant
119.	Dr. Sumod Mathew Koshy	Recent Advances in Medical Imaging & Interventional Technology.	22-23 Aug 2009, SCTIMST, Thiruvananthapuram	Paper: 'MR imaging of the breast and prostate'.
120.	Dr. Sumod Mathew Koshy	Colorectal malignancies: an update.	18 Oct 2009 Malabar Cancer Centre, Thalassery	Talk: 'Imaging in colorectal malignancies'.

121.	Mr. Sunilkumar S.	13 <sup>th</sup> National Conference of Association of Radiation Therapy Technologists of India.	7-8 Nov 2009, PGIMER, Chandigarh	Paper: 'Effect of therapeutic radiation on the induction of dicentric chromosome and micronuclei in patients with carcinoma of the uterine cervix'.
122.	Dr. Swapna R. Nath	CME on 'Current Topics in Microbiology'.	8 Aug 2009, AIIMS, Kochi.	Participant
123.	Dr. Swapna R. Nath	CME on 'Updates in Clinical Microbiology'.	7 Feb 2010, Calicut.	Participant
124.	Dr. Thomas Abraham	NABH Assessor training course for 'Certificate of compliance against essential standards for medical testing laboratories', conducted by Quality Council of India.	22-23 Feb 2010, Thiruvananthapuram	Participant
125.	Ms. Vani S.	International symposium on role of Genomics in Clinical Practice '& 35 <sup>th</sup> Annual conference of the Indian Society of Human Genetics.	6-8 Mar 2010, Lucknow	Paper: 'Germline mutations of BRCA2 gene: a molecular genetic prognosticator of breast and ovarian cancer'.
126.	Dr. Venugopal A.	25 <sup>th</sup> South zone & 18 <sup>th</sup> AP State Conference of the Indian Society of Anaesthesiology.	11-13 Sep 2009, Hyderabad	Talk: 'Subarachnoid block additives to local anaesthetics'.
127.	Dr. Venugopal A.	CME organized by Indian Society of Anaesthesiology, Kasargod branch.	13 Dec 2009, Kasargod	Talk: 'Pre-op evaluation of a cancer patient coming for surgery'.
128.	Dr. Venugopal A.	PG Quest & Mid Term CME 2010.	27-28 Mar 2010, Kozhikode	Participant
129.	Dr. Venugopal A., Dr. Mallika Balakrishnan, Dr. Sudha P.	ISACON 2009: 57 <sup>th</sup> Annual National Conference of Indian Society of Anaesthesiology.	26-29 Dec 2009, Chennai	Participants
130.	Dr. Vijayalakshmi K.	Seminar on NABL Accreditation of Blood Banks.	19 Mar 2010, Thiruvananthapuram	Participant
131.	Mr. Vishnu V.	Workshop on Quality Control Measures in Scientific Research, organised by Kerala State Council for Science, Technology and Environment, Thiruvananthapuram.	15-16 Jan 2010, Thiruvananthapuram	Participant

## ONGOING RESEARCH PROJECTS

#### **EXTRAMURAL**

		EXTRAMURAL		
Sl. N	o. Principal Investigator	Project Title	Funded by	Status
BRE	AST			
1	Dr. Jem Prabhakar	Cancer progenitor cells, tumorigenesis and treatment outcomes in breast cancer.	Dept of Biotechnology, Govt. of India	Ongoing
2	Dr. Jem Prabhakar	Differential gene expression on tumour tissue at different stages of menstrual cycle	Kerala State Councl for Science, Technology & Environment	Ongoing
3	Dr. Ramadas K.	Randomised controlled evaluation of clinical early detection in the control of breast cancer in low-and medium-resource settings.	IARC, Lyon, France	Ongoing
GAS1	TRO-INTESTINAL			
4	Dr. Chandramohan K.	Tumour primordial cells in colorectal cancer: implications for surgical margins and minimal residual disease.	Dept. of Biotechnology, Govt. of India	Ongoing
HAEI	MATOLOGICAL			
5	Dr. Geetha N.	Molecular remission with arsenic trioxide in acute promyelocytic leukaemia: (Indian APML Study Group)	Dept .of Biotechnology, Govt. of India	Follow up phase
HEAI	D & NECK			
6	Dr. Bipin T. Vargheese	Development of a strategy for comprehensive post laryngectomy rehabilitation:  A Kerala perspective.	Kerala State Council for Science, Technology & Environment	Ongoing
7	Dr. Paul Sebastian	Molecular ecology, molecular genetics and natural history of anterior tongue cancer in young adults without (or insignificant) tobacco exposure: can a distinct clinical entity be defined?	Dept .of Biotechnology, Govt. of India	Ongoing
8	Dr. Paul Sebastian	Phase 2, double – blind, placebo controlled randomized study of sulindac, a pan – COX inhibitor in oral premalignant lesions.	Memorial Sloan Kettering Cancer Centre, New York	Ongoing
9	Dr. Ramadas K.	Cluster randomized controlled trial of oral cancer screening.	IARC, Lyon, France	Ongoing
10	Dr. Ramadas K.	Estimation of tobacco attributable mortality in Kerala.	IARC, Lyon, France	Ongoing

11	Dr. Ramadas K.	Clinical and patho-biological effects of curcumin on oral leukoplakia:  A double blind placebo controlled randomized trial.	Dept. of Biotechnology, Govt. of India	Ongoing
PATH	HOLOGY			
12	Dr. Anitha Mathews	Classification of breast carcinoma based on immunohistochemical profile and its correlation with histomorphological features and clinical outcome.	Kerala State Council For Science, Technology & Environment.	Ongoing
13	Dr. Jayasree K.	Human papillomavirus 16 and 18 associated cancers in natural background radiation areas of Kerala.	Dept. of Epidemiology and Preventive Medicine, Kagoshima University, Japan	Completed
14	Dr. Jayasree K.	Assessment of the role of tyrosine kinase EphB4 in the wnt pathway by RNA interference and its significance in colon cancer: towards novel cancer therapeutics.	Dept. of Science & Technology, Govt. of India & CCMB, Hyderabad	Ongoing
15	Dr. Jayasree K.	Micro RNA (miRNA) profiling in colon and breast cancers.	Dept. of Biotechnology, Govt. of India & CCMB, Hyderabad	Ongoing
16	Dr. Rekha A. Nair	Micro RNA (miRNA) profiling in leukemias and lymphomas.	Dept. of Biotechnology, Govt. of India	Ongoing
17	Dr. Sujathan K.	Identification of biomarkers for thyroid cancer.	Dept. of Biotechnology, Govt. of India	Ongoing
18	Dr. Sujathan K.	Study of galectin-1, galectin-3, T-antigen and Bcl-2 expression in breast cancer.	Kerala State Council For Science, Technology & Environment	Ongoing
19	Dr. Sujathan K.	Medical image processing for automated Pap smear screening.	Dept. of Information Technology, Govt. of India	Ongoing
PAEI	DIATRIC ONCOLOGY			
20	Dr. Kusumakumary P.	Indian Paediatric Oncology Initiative	Jiv Daya Foundation	Ongoing
21	Dr. Priyakumari T.	Molecular genetics of paediatric acute lymphoblastic leukemia in Kerala	Kerala State Council for Science, Technology & Environment	Ongoing
CAN	CER EPIDEMIOLOGY			
22	Dr. Aleyamma Mathew	Feasibility study for a prospective life-style and dietary cohort in Thiruvananthapuram.	National Cancer Institute, USA	Ongoing
23	Dr. Aleyamma Mathew	Population Based Cancer Registry, Thiruvananthapuram.	ICMR, Govt. of India	Ongoing
24	Dr. Aleyamma Mathew	Rural Cancer Registry, Thiruvananthapuram	Finnish Cancer Society, Finland	Ongoing
25	Dr. Aleyamma Mathew	Risk prediction models for the development of breast cancer in Kerala.	University of Kerala	Ongoing

26	Dr. Aleyamma Mathew	Psycho-sexual problems of the spouses of patients with breast cancer.	Kerala State Council for Science, Technology & Environment	Completed
27	Dr. Aleyamma Mathew	Risk factors of bladder and kidney cancers: a case-control study.	Kerala State Council for Science, Technology & Environment	Ongoing
28	Dr. Kalavathy M.C.	Thiruvananthapuram Corporation cancer control programme.	Thiruvananthapuram Corporation	Ongoing
29	Dr. Kalavathy M.C.	Role of cervical HPV infection in progression or regression of a Pap smear diagnosis of atypical squamous cells among women attending the Gynaec OPD of Women & Children Hospital Thycaud, Thiruvanathapuram.	Kerala State Council for Science, Technology & Environment	Ongoing
30	Dr. Paul Sebastian	Pattern of care and survival studies on cancers of cervix, female breast and head and neck cancers.	ICMR, Govt. of India	Ongoing
31	Dr.Paul Sebastian	District Cancer Registry.	ICMR, Govt. of India	Ongoing
32	Dr. Paul Sebastian	Hospital Based Cancer Registry.	ICMR, Govt. of India	Ongoing
CAN	CER RESEARCH			
33	Dr. Hariharan S	Cytogenetic studies on the effects of chronic low level radiation in the residents of high background radiation areas (HBRA) in Kerala, India	Health Research Foundation, Japan	Ongoing
34	Dr. Kannan S.	Study on the significance of Micro-RNA expression pattern in oral carcinoma.	Dept. of Biotechnology, Govt. of India	Ongoing
35	Dr. Kannan S.	Molecular dissection of TGF-Smad signaling pathway in oral carcinoma.	Dept. of Biotechnology, Govt. of India	Ongoing
36	Dr. Remani P.	Evaluation of the anti-tumor and immunomodulatory properties of deoxy elephantopus and isodeoxy elephantopus isolated from Elephantopus scaber.	Kerala State Council for Science, Technology & Environment	Ongoing
37	Dr. Sreelekha T.T.	Elucidation of the molecular mechanism of mitotic inhibition by polysaccharide PST001 in human cancer cell lines.	Life Sciences Research Board, DRDO, Govt. of India	Ongoing
38	Dr. Sreelekha T.T.	Genomic instability in lung cancer as an early prediction tool.	Dept. of Science & Technology, Govt. of India	Ongoing
СОМ	MUNITY ONCOLOGY			
39	Dr. Jayakrishnan R.	Project on Resource Centre for Tobacco Control	World Health Organisation	Ongoing
40	Dr. Jayakrishnan R.	Evaluating the effectiveness of community based tobacco cessation strategies in Kerala State.	Part funding from Tobacco Cessation Project	Ongoing

41	Dr. Jayakrishnan R.	Commemoration of World No Tobacco activities 2009-2010.	World Health Organisation	Ongoing
42	Dr. Ramani S. Wesley	Evaluation of early detection of cervical cancer precursors by visual inspection with Lugol's iodine (VILI), visual inspection with acetic acid (VIA) and magnified VIA (VIAM) in Kerala, India.	IARC, Lyon, France & Bill Gates Foundation	Ongoing
43	Dr. Ramani S. Wesley	Cervical cancer screening using VIA, VILI for women in the control area of Trivandrum breast cancer screening project.	IARC, Lyon, France	Ongoing
44	Dr. Ramani S. Wesley	Role of cold coagulation in the treatment of cervical intraepithelial neoplasia	IARC, Lyon, France	Ongoing
INFO	RMATION SYSTEMS			
45	Dr. Paul Sebastian	Development of data management system for oncology.	Dept. of Information Technology, Govt. of India	Ongoing
MOLI	ECULAR MEDICINE, DRUG D	EVELOPMENT AND CHEMO-INFORMATICS		
46	Dr. Lakshmi S.	Gene-environment interaction and breast cancer risk.	Dept. of Science & Technology, Govt. of India	Ongoing
47	Dr. Lakshmi S.	Expression of estrogen receptor & co-factors in breast carcinoma.	ICMR, Govt. of India	Completed
48	Dr. Lakshmi S.	Role of stat3 as downstream mediator of steroid and epidermal growth factor pathways in breast cancer.	ICMR, Govt. of India	Ongoing
NATU	JRAL BACKGROUND RADIAT	ION CANCER REGISTRY		
49	Dr. Jayalekshmi P.	Prevention and cancer control among female workers in traditional industries - Cashew workers (Scheduled Caste).	Kollam Jilla Panchayath, LAD, Govt. of Kerala	Ongoing
50	Dr. Jayalekshmi P.	Prevention and cancer control among Tribal population of Kollam District.	Kollam Jilla Panchayath, LAD, Govt. of Kerala	Ongoing
51	Dr. Jayalekshmi P.	Cancer control and cancer patient service project.	LAD, Govt. of Kerala	Ongoing
52	Dr. Raghu Ram K. Nair	Natural Background Radiation Registry (NBRR): Radiation measurement and socio demographic survey of Sakthikulangara, Poothakulam, Mayyanad and Paravur.	BARC, Mumbai	Ongoing
53	Dr. Raghu Ram K. Nair	Thyroid nodularity studies.	Health Research Foundation, Japan	Ongoing
RADI	ATION PHYSICS			
54	Dr. Thayal Singh Elias	Software development of radiotherapy management system.	Kerala State Council for Science, Technology & Environment	Ongoing

### RESEARCH PROJECTS

#### PHARMA/INDUSTRY SPONSORED

Sl. No	o. Principal Investigator	Project title	Funded by	Status
BREA	ST & CENTRAL NERVOUS S	YSTEM		
01.	Dr. Asha Arjunan	CA-163-100: A randomized phase 2 biomarker neoadjuvant study of sequential AC followed by ixabepilone compared to sequential AC followed by paclitaxel in women with early stage breast cancer.	Bristol-Myers Sqibb	Ongoing
02.	Dr. Asha Arjunan	Phase 3 study of vinflunine plus gemcitabine versus gemcitabine plus paclitaxel in patients with unresectable, locally recurrent or metastatic breast cancer after prior anthracycline-based adjuvant chemotherapy	UNC Lineberger	Ongoing
03.	Dr. Asha Arjunan	Randomised phase 2 biomarker neoadjuvant study in women with early stage breast cancer not overexpressing HER-2 and estrogen recepto	Bristol-Myers Sqibb rs.	Ongoing
04.	Dr. Beela Sarah Mathew	A phase 3 study of vinflunine plus capecitabine versus capecitabine alone in patients with advanced breast cancer previously treated with or resistant to an anthracycline and who are taxane resistant.	Pierre-Fabre Medicament	Ongoing
05.	Dr. Beela Sarah Mathew	A randomized, multi-centre, open-label, phase 3 study of adjuvant lapatinib, trastuzumab, their sequence and their combination in patients with HER2/ErbB2 positive primary breast cancer.	Glaxo SmithKline	Ongoing
06.	Dr. Beela Sarah Mathew	An open label, prospective, multicentric study to evaluate the safety and efficacy of BIOMAb-EGFRTM (Nimotuzumab) as induction and maintenance therapy in combination with radiotherapy plus temozolomide (concomitant & adjuvant) in Indian patients with glioblastoma multiforme.	Biocon Ltd	Ongoing
07.	Dr. Beela Sarah Mathew	Epoetin alpha versus standard supportive care in anaemic patients with metastatic breast cancer receiving first line standard chemotherapy –Phase 3 randomised, open label, multicentric study	Johnson & Johnson	Ongoing
08.	Dr. Ratheesan K.	A randomized, double-blind, multicentre study of denosumab compared with zoledronic acid (Zometa) in the treatment of bone metastases in subjects with advanced breast cancer.	Amgen	Ongoing

16.	Dr. Sajeed A.	A randomised, phase 2b, multicentre study of pralatrexate versus erlotinib in patients with stage 3b/4 non-small cell lung cancer after failure of at least 1 platinum based treatment.	Allos therapeutics	Completed
15.	Dr. Sajeed A.	A randomized double-blind, parallel, three arm, multi-centre, phase 2 trial evaluating the efficacy and safety of ipilimumab (BMS-734016) in combination with taxol/paraplatin (paclitaxel/carboplatin) compared to taxol/paraplatin alone in previously untreated	Bristol-Myers Squibb	Completed
CHES	T & GASTRO-INTESTINAL			
14.	Dr. Ratheesan K.	A phase 2 randomized, double masked, placebo controlled study to evaluate the efficacy of SNX-1012 in reducing the duration and severity of ulcerative oral mucositis in patients receiving cytotoxic chemotherapy for breast and lung cancer.	Mucousal Therapeutics	Completed
13.	Dr. Ratheesan K.	An open-label randomised phase 2 study of two different dosing regimens of capecitabine in combination with intravenous docetaxel (Q3W) in patients with locally advanced and/or metastatic breast cancer.	Roche	Completed
12.	Dr. Ratheesan K.	A randomized, double-blind, parallel-group, multicentre, phase 3 study comparing the efficacy and tolerability of fulvestrant (FASLODEX) 500mg with fulvestrant (FASLODEX) 250mg in post menopausal women with oestrogen receptor positive advanced breast cancer progressing or relapsing after previous endocrine therapy.	Astra Zeneca	Ongoing
11.	Dr. Ratheesan K.	A phase 2 safety and efficacy study of bavatuximab plus weekly paclitaxel and carboplatin in patients with locally advanced or metastatic cancer.	Peregrine	Ongoing
10.	Dr. Ratheesan K.	A two-way crossover experimental evaluation of relative bioavailabilities of two formulations of temozolomide 250mg capsules in adult human male and/or female patients under fasting conditions.	Intas pharmaceuticals	Completed
)9.	Dr. Ratheesan K.	A double blind randomized phase 2 B study evaluating the efficacy and safety of sorafenib compared to placebo when administered in combination with paclitaxel in patients with locally recurrent and metastatic breast cancer.	Bayer Pharma	Ongoing

17.	Dr. Sajeed A.	A randomized, double-blind, phase 3 study to compare the efficacy and safety of AZD 2171 when added to 5-flurouracil, leucovorin and oxaliplatin (Folfox) or capecitabine and oxaliplatin (Xelox) with the efficacy and safety of placebo when added to folfox or xelox in patients with previously untreated metastatic colorectal cancer.	Astra Zeneca	Completed
18.	Dr. Sajeed A.	A phase 3 multicentre, randomized, placebo controlled, double-blind, trial of AMG 706 in combination with paclitaxel and carboplatin for non-small cell lung cancer.	Amgen	Completed
19.	Dr. Sajeed A.	Randomized, phase 3b, multi-centre, open label, parallel study of enoxaparin (low molecular weight heparin) given concomitantly with chemotherapy versus chemotherapy alone in patients with inoperable gastric and gastroesophageal cancer.	Thrombosis Research Institute	Ongoing
20.	Dr. Sajeed A.	A phase 3, study of premetrexed, cisplatin and radiotherapy followed by consolidation premetrexed versus etoposide, cisplatin and radiotherapy followed by consolidation cytotoxic chemotherapy of choice in patients with unresectable, locally advanced, stage 3 non- small lung cancer other than predominantly squamous cell histology.	Eli lilly	Ongoing
21.	Dr. Sivanandan C. D.	Phase 1 / 2 study of premetrexed (Alimta) plus carboplatin or premetrexed cisplatin with concurrent radiation therapy followed by every 21-day premetrexed consolidation in patients with favorable prognosis in operable stage 3A/B non-small cell lung cancer.	Eli Lilly India	Ongoing
22.	Dr. Sivanandan C. D.	A phase 3, randomized, double blind, placebo-controlled, study of oral talactoferrin in addition to best supportive care in patients with non-small cell lung cancer who have failed two or more prior treatment regimens.	Agennix Pharma	Completed
23.	Dr. Sivanandan C. D.	EGF110656: A phase 3 study of ERBB2 positive advanced or metastatic gastric or esophageal or gastroesophageal junction adenocarcinoma treated with capecitabine plus oxaloplatin with or without lapatinib.	Glaxo Smithkline	Ongoing

24.	Dr. Sivanandan C. D.  AEC & GENITO-URINARY	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	Ongoing
25.	Dr. Francis V. James	Project ID: Protocol 3066k1-3311-ww: PT: phase 3 randomized open-label study of bevacizumab (avastin)+temsirolimus (Torisel) venus bevcizumab (avastin) + interferon-alpha (Roferon) as first line treatment in subjects with advanced renal cell carcinoma.	Wyeth Pharmaceuticals	Ongoing
26.	Dr. Jayaprakash P.G.	Project ID: D4320C00014: A Phase 3, randomized, double-blind study to assess the efficacy and safety of 10mg ZD4054 versus placebo in patients with hormone-resistant prostate cancer and bone metastasis who are pain free or mildly symptomatic.	Astra Zeneca	Ongoing
27.	Dr. Jayaprakash P.G.	Project ID: D4320C00033: A phase 3, randomized, double-blind placebo controlled study to assess the efficacy and safety of 10 mg ZD4054 in combination with docetaxel in comparison with docetaxel in patients with metastatic hormone-resistant prostate cancer.	Astra Zeneca	Ongoing
28.	Dr. Jayaprakash P.G.	Project ID: AMGEN 20050103: A randomized, double-blind, multicentre study of denosumab compared with zoledronic acid (Zometa) in the treatment of bone metastases in men with hormone-refractory prostate cancer.	Amgen	Ongoing
29.	Dr. Jayaprakash P.G.	Project ID: AMGEN 20050147: A randomized, double-blind, placebo-controlled, multicentre phase 3 study of denosumab on prolonging bone metastasis-free survival in men with hormone-refractory prostate cancer.	Amgen	Ongoing
30.	Dr. Jayaprakash P.G.	Project ID: Protocol MORAb 003-004: A randomized, double-blind, placebo- controlled phase 3 study to assess the efficacy and safety of weekly farletazumab (MORAb-003) in combination with carboplatin and taxane in subjects with platinum-sensitive ovarian cancer in first relapse.	Morphotek	Ongoing

### RESEARCH PROJECTS

#### HAEMATOLOGICAL, LYMPHORETICULAR, BONE & SOFT TISSUE

31.	Dr. Geetha N.	Protocol PIX301: A novel aza-anthracenedione versus other chemotherapeutic agents for third line single agent treatment of patients with relapsed aggressive non-Hodgkin's lymphoma: A randomized, controlled phase 3 comparative trial.	Cell Therapeutics	Ongoing
32.	Dr. Geetha N.	An open-label, randomized, multicentre phase 3 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.	Bristol-Myers Squibb	Ongoing
33.	Dr. Geetha N.	MK-0683-088: An international, multicentre, randomized, double-blind study of vorinostat (MK-0683) or placebo in combination with bortezomib in patients with multiple myeloma.	Merck	Ongoing
34.	Dr. Geetha N.	A randomized, open-label, multicentre, phase 2/3 study to evaluate the safety and efficacy of lumiliximab in combination with fludarabine, cyclophosphamide, and rituximab versus fludarabine, cyclophosphamide, and Rituximab alone in subjects with relapsed chronic lymphocytic leukemia.	Biogen idec	Ongoing
35.	Dr. Geetha N.	A phase 3 clinical study to investigate the prevention of relapse in lymphoma using daily enzastaurin.	Eli Lilly	Ongoing
36.	Dr. Prakash N.P.	WORLD observational registry collecting longitudinal data on the management of chronic myelogenous leukemia patients.	Novartis	Ongoing
37.	Dr. Sreejith G. Nair	26866138-LYM-3001: A randomized, open-label, multicentre study of VELCADE with rituximab or rituximab alone in subjects with relapsed or refractory, rituximab naive or sensitive follicular B-cell non-Hodgkin's lymphoma.	Johnson & Johnson	Ongoing
38.	Dr. Sreejith G. Nair	A randomised, open_label multicentre phase 3 study of the combination of rituximab, cyclophosphamide, doxorubicin, VELCADE and prednisone (VcR-CAP) or rituximab, cyclophosphamide, doxorubicin, vincristine and Prednosone (R-CHOP) in patients with newly diagnosed mantle cell lymphoma who are not eligible for a bone marrow transplant.	Johnson & Johnson	Ongoing

39.	Dr. Sreejith G. Nair	Protocol:AP23573-07-302: A pivotal trial to determine the efficacy and safety of AP23573 when administered as maintenance therapy to patients with metastatic soft-tissue or bone sarcomas.	Kendle	Ongoing
HEAD	0 & NECK			
40.	Dr. Rejnish Kumar R.	A randomised, double-blind, placebo-controlled, multicentre, phase 2 study of oral lapatinib in combination with concurrent radiotherapy and cisplatin versus radiotherapy and cisplatin alone, in subjects with stage 3 and 4A, B squamous cell carcinoma of the head and neck.	Glaxo Smithkline	Ongoing
41.	Dr. Rejnish Kumar R.	A randomised, double-blind placebo-controlled, multicentre, phase 3 study of post-operative adjuvant lapatinib or placebo and concurrent chemo-radiotherapy followed by maintenance lapatinib or placebo monotherapy in high risk subjects with resected squamous cell carcinoma of head and neck.	Glaxo Smithkline	Ongoing
42.	Dr. Rejnish Kumar R.	International randomized study to evaluate the addition of docetaxel to the combination of cisplatin-5-fluorouracil (TCF) versus cisplatin- 5-fluorouracil (CF) in the induction treatment of nasopharyngeal carcinoma in children and adolescents.	Sanofi Aventis	Ongoing
43.	Dr. Rejnish Kumar R.	A randomized phase 3 study of pemetrexed in combination with cisplatin versus cisplatin monotherapy in patients with recurrent or metastatic head and neck cancer.	Eli Lilly	Completed
44.	Dr. Rejnish Kumar R.	A phase 3 randomized trial of chemotherapy with or without panitumumab in patients with metastatic and / or recurrent squamous cell carcinoma of the head and neck.	Amgen	Ongoing
45.	Dr. Rejnish Kumar R.	An open label, multicentre phase 2 study to evaluate efficacy and safety of P276-00 in Indian subjects with recurrent, metastatic or unresectable locally advanced squamous cell carcinoma of head and neck.	Piramal Life Sciences	Ongoing
PATH	OLOGY			
46.	Dr. Sujathan K.	3-D analysis of chromatin texture in cell nuclei to improve cervical cancer screening.	Vinnova	Ongoing

### RESEARCH PROJECTS

#### **IN-HOUSE PROJECTS**

Sl. No.	Principal Investigator	Project title	Status
ANAES	THESIOLOGY		
01.	Dr. Mallika Balakrishnan	Comparison of emergence phenomenon and post-operative sore throat following cuff inflation of endotracheal tube with 4% alkalinized lignocaine versus air. (DNB Thesis guidance)	Ongoing
02.	Dr. Mallika Balakrishnan	A comparison of the upper lip bite test with modified Mallampatti classification in predicting difficulty in endotracheal intubation. [DNB Thesis guidance]	Ongoing
03.	Dr. Mary Thomas	A randomized double blind controlled trial to study the effect of small doses ketamine in prevention of pain on propofol injection	Completed
04.	Dr. Mary Thomas	Intermittent bolus dose of epidural buprinorphine versus continuous infusion of bupivacaine for post-operative pain relief.	Completed
05.	Dr. Mary Thomas	Comparison of epidural bupivacaine-clonidine versus bupivacainein adults undergoing laprotomy	Completed
06.	Dr. Rachel Cherian Koshy	Comparison of intravenous induction with propofol versus inhalation induction with sevoflurane a randomized control trial.	Ongoing
07.	Dr. Rachel Cherian Koshy	A prospective double blind randomized control trial to study the efficacy of a single dose pre emptive gabapentin to reduce post operative pain and opioid demand following head and neck surgery.	Ongoing
08.	Dr. Rachel Cherian Koshy	Comparative evaluation of ease of intubation following in line stabilization using intubating LMA versus conventional endotracheal intubation following in line manual stabilization.	Ongoing
09.	Dr. Rachel Cherian Koshy	Efficacy of dexmedetomidine for post-operative endotracheal tube tolerance, analgesia, sedation: a prospective, randomized, double blind controlled trial.	Ongoing
10.	Dr. Rajasree O.	Effect of perioperative intravenous tranexamic acid on surgical blood loss in head and neck cancer surgeries: a double blind randomized control trial.	Ongoing
11.	Dr. Rajasree O.	Co-morbidity as a predictor of post-operative morbidity: A prospective analytical study.	Ongoing
12.	Dr. Venugopal A.	A comparative study of pharyngolaryngeal morbidity following classical LMA versus endotracheal intubation.	Ongoing
13.	Dr. Venugopal A.	A comparison between ephedrine and ketamine in the prevention of hypotension following propofol induction.	Ongoing
BREAS1	г		
14.	Dr. Beela Sarah Mathew	Survival analysis of patients treated in the Breast Unit, Regional Cancer Centre, Trivandrum.	Ongoing
HAEMA	TOLOGICAL & LYMPHORETIC	CULAR	
15.	Dr. Geetha N.	Clinical and prognostic significance of molecular factors in adult acute myeloid leukemia.	Ongoing

16.	Dr. Geetha N.	Role of NFêB activation and target-gene expression in malignant lymphomas.	Ongoing
17.	Dr. Geetha N.	Serum galactomannan assay in the early diagnosis of aspergillosis in patients with acute leukemia.	Ongoing
18.	Dr. Lali V.S.	Clinical presentation and outcome of patients with  Philadelphia chromosome positive acute lymphoblastic leukemia.	Ongoing
19.	Dr. Prakash N.P.	Transfusional iron overload in patients with acute leukaemia.	Ongoing
HEAD	& NECK		
20.	Dr. Bipin T. Vargheese	Prospective randomized study comparing the efficacy of watch and wait policy with neck dissection in clinical superficial tongue squamous cell cancers with N0 status.	Ongoing
21.	Dr. Elizabeth Mathew lype	Study on selected molecular markers as indicators of treatment outcome and prognosis of carcinoma larynx.	Ongoing
22.	Dr. Elizabeth Mathew lype	Survival analysis of paranasal sinus tumors in young: a matched pair analysis.	Ongoing
23.	Dr. Elizabeth Mathew lype	Comorbidity as a predictor of post-operative morbidity : a prospective analytical study.	Ongoing
24.	Dr. Kainikkal C.T.	Randomized control trial comparing altered fractionation with concurrent chemo-radiotherapy in locally advanced head and neck cancer. (DNB Thesis guidance)	Ongoing
25.	Dr. Kainikkal C.T.	Phase 2 B role of post-operative radiotherapy in head and neck cancer with or without chemotherapy. (DNB Thesis guidance)	Completed
26.	Dr. Kainikkal C.T.	Randomized control trial comparing two schedules of cisplatin based concurrent chemo-radiotherapy in locally advanced head and neck cancer. (DNB Thesis guidance)	Ongoing
27.	Dr. Ramadas K.	Randomized phase 2 B study of post-operative radiation with or without concomitant chemotherapy in locally advanced cancers of the oral cavity.	Completed
28.	Dr. Ramadas K.	Comparison of six days a week radiation with concurrent chemo-radiation in locally advanced squamous cell carcinoma of the head & neck: a pilot study	Ongoing
29.	Dr. Rejnish Kumar R.	Comparison of weekly versus three weekly cisplatin concurrently with radiation in the treatment of locally advanced head & neck squamous cell carcinoma.	Ongoing
PATHO	DLOGY		
30.	Dr. Anitha Mathews	Correlation of HER2/neu protein expression with steroid receptor status and pathological features in breast carcinoma. (DNB Thesis guidance)	Completed
31.	Dr. Anitha Mathews	Correlation of clinicopathological features with MIB-1 labelling index, progesterone receptor status and outcome in meningiomas.  (DNB Thesis guidance)	Ongoing

32.	Dr. Jayasree K	Pattern of P53 expression, proliferative activity and prognostic indicators in borderline ovarian tumours- a retrospective histopathologic analysis with IHC correlation. (DNB Thesis guidance)	Ongoing
33.	Dr. Jayasree K.	Histological and immunohistochemical prognostic factors in paediatric osteosarcomas: a retrospective study. (DNB Thesis guidance)	Ongoing
34.	Dr. Nileena Nayak	Histomorphological features, immunohistochemical analysis and proliferative index Ki 67 in plasma cell myeloma: correlation with clinical stage and prognostic significance. (DNB Thesis guidance)	Completed
35.	Dr. Preethi T.R	Diagnostic value of HBME-1 and CK19 in the differential diagnosis of follicular lesions of thyroid in fine needle aspiration cytology.  (DNB Thesis guidance)	Ongoing
36.	Dr. Raveendran Pillai K.	Significance of psammoma bodies in fine needle aspiration cytology of breast: A clinicopathological study – Five year retrospective analysis. (DNB Thesis guidance)	Ongoing
37.	Dr. Rekha A. Nair	Immunohistochemical markers of diffuse large cell lymphoma. (DNB Thesis guidance)	Completed
38.	Dr. Rekha A. Nair	Flow cytometric immunotyping in paediatric myeloperoxidase negative acute leukaemias: A clinicopathological analysis.  (DNB Thesis guidance)	Ongoing
39.	Dr. Thara Somanathan	Evaluation of the prognostic value of histopathological parameters in oral and oropharyngeal squamous cell carcinoma in predicting treatment outcome and survival. (DNB Thesis guidance)	Ongoing
CANCE	ER EPIDEMIOLOGY		
40.	Dr. Aleyamma Mathew	Case-control study of breast cancer.	Ongoing
41.	Dr. Aleyamma Mathew	Meta analysis of anthropometric factors and cancer risk.	Completed
42.	Dr. Kalavathy M.C.	Pap smear screening programme, Women & Children Hospital, Thycaudu.	Ongoing
43.	Dr. Kalavathy M.C.	Pap smear screening programme, Govt Hospital, Peroorkkada.	Ongoing
44.	Dr. Preethi Sara George	Estimation of burden of cancer and projection of cancer load in Kerala.	Ongoing
45.	Dr. Preethi Sara George	Meta analysis of occupation and the risk of various cancers.	Ongoing
СОММ	UNITY ONCOLOGY		
46.	Dr. Gigi Thomas	Search for predictive genetic markers of high-risk malignant transformation potential in oral leukoplakia patients.	Ongoing
47.	Dr. Gigi Thomas	A multi-centre phase 2 randomised double-blind placebo efficacy and safety of Curcumin in oral premalignant lesions.	Ongoing
48.	Dr. Jayakrishnan R.	Prevention and control of cancer among Cashew workers of Kollam Jilla Panchayath.	Ongoing

### **PUBLICATIONS**

#### JOURNAL ARTICLES

- Aleyamma Mathew, Gajalakshmi V, Rajan B, Kanimozhi VC, Brennan P, Binukumar BP, Boffetta P. 'Physical activity levels among urban and rural women in South India and the risk of breast cancer: a case-control study'. European Journal of Cancer Prevention. 2009/18[5]: 368-76
- 2. Aleyamma Mathew, Preethi Sara George, Grata Ildaphonse. 'Obesity and kidney cancer risk in women: a meta-analysis (1992-2008)'. Asian Pacific Journal of Cancer Prevention. 2009/10(3): 471-78
- 3. Aleyamma Mathew, Preethi Sara George. 'Trends in incidence and mortality rates of squamous cell carcinoma and adenocarcinoma of cervix worldwide'. Asian Pacific Journal of Cancer Prevention. 2009/10(4): 645-50
- 4. Antony ML, Rema P, *Paul Sebastian*, Karunagaran D. 'Changes in expression, and/or mutations in TGF-Beta receptors (TGF-Beta RI and TGF-Beta RII) and Smad 4 in human ovarian tumors'. Journal of Cancer Research and Clinical Oncology. 2010/136(3): 351-61
- 5. Babu Mathew. 'An epidemic of oral cancer predicted by 2020 in India.' Oral Oncology Supplement. 2009/3(1): 230
- 6. Balagopal PG, Nebu A. George, Paul Sebastian. 'Role of salvage surgery in patients who recurred after interstitial implant therapy for early tongue cancer'. Oral Oncology Supplement. 2009/3(1):178
- 7. Bipin T. Varghese, Paul Sebastian, Aleyamma Mathew. 'Treatment outcome in patients undergoing surgery for carcinoma larynx and hypopharynx: a follow-up study'. Acta Otolaryngologica. 2009/129(12): 1480-85
- 8. Bipin T. Varghese. 'Pectoralis major flap perfusion'. Journal of Plastic and Reconstructive Anaesthetic Surgery. 2010/63(2): e183
- 9. Cancela Mde C, *Ramadas* K, Fayette JM, *Gigi Thomas*, Muwonge R, Chapuis F, *Thara Somanathan*, Sankaranarayanan R, Sauvaget C. 'Alcohol intake and oral cavity cancer risk among men in a prospective study in Kerala, India'. Community Dentistry and Oral Epidemiology. 2009/37(4): 342-49
- 10. Chandramohan K, Anitha Mathews, Anu Kurian, Shaji Thomas, Ramachandran K. 'Squamous cell carcinoma arising from perineal lesion in a familial case of Hidradenitis suppurativa'. International Wound Journal. 2009/6(2): 141-44
- 11. Cherian M. Koshy. 'Tele-clinic in palliative care: a unique opportunity window to deliver quality specialist care'. Palliative Medicine. 2010/24(2): 207
- 12. Ciuleanu T, Brodowicz T, Zielinski C, Kim JH, Krzakowski M, Laack E, Wu YL, Bover I, Begbie S, Tzekova V, Cucevic B, Pereira JR, Yang SH, *Jayaprakash Madhavan*, Sugarman KP, Peterson P, John WJ, Krejcy K, Belani CP. 'Maintenance pemetrexed plus best supportive care versus placebo plus best supportive care for non-small-cell lung cancer: a randomized, double-blind, phase 3 study'. The Lancet . 2009/374(9699): 1432-40
- 13. Francis V. James, Aswin Kumar, Jayaprakash PG, Anitha Mathews. 'Metachronous bilateral testicular gem cell tumours: report of two cases'. Journal of Cancer Research and Therapeutics. 2009/5[3]: 206-07
- Gajalakshmi V, Aleyamma Mathew, Brennan P, Rajan B, Kanimozhi VC, Anitha Mathews, Beela Sarah Mathew, Boffetta P.
   'Breast feeding and breast cancer risk in India: A multicenter case-control study'. International Journal of Cancer. 2009/ 125(3): 662-65

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- 15. Geetha N. 'An update on diagnosis and treatment of adult T-cell leukemia/lymphoma' Oncologix. 2010/(24):
- 16. Grata Ildaphonse, *Preethi Sara George, Aleyamma Mathew.* 'Obesity and kidney cancer risk in men: a meta-analysis (1992-2008)'. Asian Pacific Journal of Cancer Prevention. 2009/10(2): 279-86
- 17. Jayakrishnan K, Aby K. Koshy, Pochiraju Manjula, Anitha M. Nair, Anupama Ramachandran, Jayasree K. 'Endometrial stromal sarcoma mimicking a myoma'. Fertility and Sterility. 2009/92(5): 1744-46
- 18. Jayalekshmi P, Sunoj C. Varughese, Kalavathi MC, Krishnan Nair M, Jayaprakash V, Gangadharan P, Raghu Ram K. Nair, Akiba S. 'A nested case-control study of female breast cancer in Karunagappally cohort in Kerala, India.' Asian Pacific Journal of Cancer Prevention. 2009/10(2): 241-46
- 19. Jayanthi JL, Rupananda J. Mallia, Shiny Sara Thomas, Baiju KV, *Anitha Mathews, Rejnish Kumar R, Paul Sebastian, Jayaprakash Madhavan*, Aparna GN, Subhash N. 'Discriminant analysis of autofluorescence spectra for classification of oral lesions in vivo'. Lasers in Surgery and Medicine. 2009/41(5): 345-52
- 20. Jayasree P, Sukumaran TU, *Nileena Nayak, Kusumakumary P.* 'An unusual differential diagnosis for Asthma (Case Report)'. Pediatric Companion. 2010/5(1): 17-18
- 21. Krishna R, Kiron Nair, *Geetha N, Ratheesan K, Sreejith G. Nair, Mirsa Hussain B.* 'Clinical pattern of primary central nervous system lymphoma in a developing country' European Journal of Cancer. 2009/7(2)Suppl.:501
- 22. Lakshmi S, Rema P, Thara Somanathan. 'P16ink4a is a surrogate marker for higher risk and malignant cervical lesions in the presence of human papillomavirus'. Pathobiology. 2009/76(3): 141-48
- 23. Manju L, *Preethi Sara George, Aleyamma Mathew.* 'Urinary bladder cancer risk among motor vehicle drivers: a meta-analysis of the evidence, 1977-2008'. Asian Pacific Journal of Cancer Prevention. 2009/10(2): 287-94
- 24. Manoj Pandey, Bindu R, Soumithran CS. 'Results of primary versus salvage surgery in carcinoma of the buccal mucosa'. European Journal of Surgical Oncology. 2009/35(4): 362-67
- 25. Mary Thomas, Nebu A. George, Paul Sebastian, Balagopal PG, Preethi Sara George. 'A novel morbidity prediction score for head and neck oncosurgeries.' Oral Oncology Supplement. 2009/3[1]: 113
- 26. Mathew PC, Balakrishnan Nair, *Shaji Thomas, Thara Somanathan, Paul Sebastian*. 'Synchronous papillary carcinoma in thyroglossal duct cyst and thyroid gland: case report and review of literature'. Head and Neck. 2009/31(10): 1387-91
- 27. McGrath P; Hamish H; *Thomas Koilparambil, Cherian M. Koshy*, Shoba George. 'Learning from each other: cross-cultural insights on palliative care in Indian and Australian regions'. International Journal of Palliative Care Nursing. 2009/15(10): 499-509
- 28. Mohammed K. Shakeel, *Preethi Sara George*, Jesna Jose, Josna Jose, *Aleyamma Mathew*. 'Pesticides and breast cancer risk: a comparison between developed and developing countries' Asian Pacific Journal of Cancer Prevention. 2010/11(1): 173-80
- 29. Murthy NS, Shalini S, Suman G, Srekantaiah Pruthvish, *Aleyamma Mathew*. 'Changing trends in incidence of ovarian cancer: the Indian scenario'. Asian Pacific Journal of Cancer Prevention. 2009/10(6): 1025-30
- 30. Nebu A. George, Balagopal PG, Paul Sebastian. 'Level IIB cervical lymph node dissection in oral cancers: A prospective study of involvement'. Oral Oncology Supplement. 2009/3(1): 176-77
- 31. Nebu A. George, Paul Sebastian, Sankaranarayanan R, Anish BS, Kashyap R, Muwonge R. 'Predictors of recurrence in carcinoma of the lower gingiva and buccal mucosa: a review of 499 patients.' Oral Oncology Supplement. 2009/3(1): 113
- 32. Paul Sebastian, Muwonge R, Nebu A. George, Sankaranarayanan R, Raj D, Balagopal PG. 'Tongue carcinoma in young adults : a retrospective review of treatment and outcome in 144 patients'. Oral Oncology Supplement. 2009/3(1):75
- 33. Pettengell R, Coiffier B, *Geetha N*, Mendoza FH, Digumarti, R, Gomez H, Zinzani PL, Schiller GL, Rizzieri DA, Cernohous P, Wang L, Singer JW. 'Phase III trial of pixantrone dimaleate compared with other agents as third-line, single-agent treatment of relapsed aggressive non-Hodgkin's lymphoma (EXTEND): Results from the treatment and follow-up periods'. Blood. 2009/114(22): 669

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- 34. Pettengell R, *Geetha N*, Mendoza FH, Digumarti R, Gomez H, Cernohous P, Gorbatchevsky I. 'Randomized phase III trial of pixantrone compared with other chemotherapeutic agents for third-line single-agent treatment of relapsed aggressive non-Hodgkin's lymphoma' Journal of Clinical Oncology. 2009/27(15S): 439S
- 35. Preethi Sara George, Aleyamma Mathew. 'Risk estimation per unit change from summarized data and empirical comparisons'. STARS: International Journal. 2009/3(1): 71-80
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- 37. Rajagopal K, Sumod Mathew Koshy. 'Multifocal osteosarcoma, a case report'. The Internet Journal of Radiology. 2010/11[2]: 1-8
- 38. Ramadas K, Gigi Thomas, Thara Somanathan, Muwonge R, Babu Mathew, Sankaranarayanan R. 'Oral visual screening reduces mortality in high risk individuals: Trivandrum experience.' Oral Oncology Supplement. 2009/3(1): 229-30
- 39. Ramadas K, Surya Ramachandran, Muwonge R, Radhakrishna Pillai M. 'Tumor progression in the oral cavity: The significance of genetic polymorphisms in CYP1A1, GST M1 and XRCC 1 in a South Indian population'. Oral Oncology Supplement. 2009/3(1): 69
- 40. Raveendran Pillai K, Sujathan K, Mani KS, Jayalal KS, Thara Somanathan. 'Psammoma bodies in cervical smear in association with keratinizing squamous cell carcinoma of cervix: A case report.' Diagnostic Cytopathology. 2009/37(6): 450-54
- 41. Ravikanth Balaji, Ramachandran K, Anila KR. 'Ovarian carcinoma metastasis to the breast and imaging features with histopathologic correlation: a case report and review of the literature.' Clinical Breast Cancer. 2009/9[3]: 196-98
- 42. Ravikanth Balaji, Ramachandran K, Kusumakumary P. 'Neuroimaging patterns of central nervous system metastases in neuroblastoma: report of 2 recent cases and literature review'. Journal of Child Neurology. 2009/24(10): 1290-93
- 43. Ravikanth Balaji, Ramachandran K, Manjusha Nair, Kusumakumary P. 'Chemotherapy-induced posterior reversible encephalopathy syndrome in childhood Chronic Myeloid Leukemia: a case report and review of literature'. The Neuroradiology Journal. 2009/22(2): 204-08
- 44. Ravikanth Balaji, Ramachandran K, Thara Somanathan. 'A rare case of solitary fibrous tumour of the signoid mesocolon: imaging features and review of literature'. Cancer Imaging. 2009/9[1]: 67-69
- 45. Ravikanth Balaji, Ramachandran K. 'Cheeky kidney'. Radiographics. 2009/9(4): 1072
- 46. Ravikanth Balaji, Ramachandran K. 'Imaging of desmoplastic infantile ganglioglioma: a spectroscopic view point'. Child's Nervous System [E-Journal]. 2009/25(4): 497-501
- 47. Ravikanth Balaji, Ramachandran K. 'Le Papillon'. Radiographics. 2010/30(2): 338
- 48. Ravikanth Balaji, Ramachandran K. 'Multivoxel 1H MR spectroscopic approach to the diagnosis of intraventricular central neurocytoma: a case report'. The Neuroradiology Journal. 2009/22(2): 175-78
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- 50. Ravikanth Balaji, Sumod Mathew Koshy. 'Snoozy Spaniel'. Radiographics. 2009/9(6): 2054
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#### **Conference Papers**

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- 74. Binu KA, Lakshmi S, Thara Somanathan. 'Expression analysis of P160 Steroid Receptor Coactivator (SRC) family members in breast cancer'. In: Proceedings of 22<sup>nd</sup> Kerala Science Congress, KRFI, Peechi, 2010: 677-78
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### **PUBLICATIONS**

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- 86. Prabha Pillai, Lakshmi S, Jem Prabhakar, Thara Somanathan. 'Activation of signal transducers and activators of transcription 3 (STAT3) in breast cancer: Assocation with cell proliferation and survival'. In: 29th Annual convention of Indian Association for Cancer Research and Symposium, AIMS, Kochi, 2010: 77
- 87. Praveen Kumar BR, Ravindran Ankathil. 'Germline hMLH1 mutations in Indian colorectal cancer patients with suspected Lynch syndrome'. In: Proceedings of 22<sup>nd</sup> Kerala Science Congress, KRFI, Peechi, 2010: 679-80
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## **MISCELLANEOUS**

#### 1. HUMAN RESOURCES

#### a. STAFF STRENGTH

Type of Staff	Permanent	New Recruits	Temporary	Daily wages	Depu	tation	Consultants
					In	Out	engaged
Academic	94	11	3	_	_	_	7
Non-Academic	454	17	32	212	4	1	2

#### **b. ACADEMIC STAFF STRENGTH**

Professors-6, Additional Professors-27, Associate Professors-20, Assistant Professors-23, Lecturers-18

#### c. NON-ACADEMIC STAFF STRENGTH

Administrative Office		
Shyam Mohan V (Sri.)	Administrative Officer	
Sasikumar S V (Sri.)	Purchase Officer	
Lalitha B (Smt.)	Asst. Administrative	
	Officer Gr. I	
Remila C K (Smt.)	Office Assistant Sel.Gr.	
Sylaja C (Smt.)	Office Assistant Sel.Gr.	
Ajitha 0 S (Smt.)	Office Assistant Sr. Gr.	
Snehalatha H B (Smt.)	Office Assistant Sr. Gr.	
Veena C L (Smt.)	Office Assistant Sr. Gr.	
Vijayan S (Sri.)	Office Assistant Sr. Gr.	
Vijayaprasad B (Sri.)	Clerk Gr. I	
Sudevi R (Smt.)	Junior Personal Assistant	
Ambili S (Smt.)	Clinical Records Assistant	
Balachandran L (Sri.)	Senior Helper	
Seethalakshmi P S (Smt.)	Despatcher	
Suliman S (Sri.)	Hospital Attender	
Mini N (Smt.)	Dietician Gr.I	
Cancer Epidemiology & Clinical Research		

#### Cancer Epidemiology & Clinical Research

Anita Nayar (Smt.)	Social Investigator Sr.Gr.
Asha N M (Smt.)	Clerk Gr.I
Jaya Kumar P (Sri.)	Clerk Gr.I
Prasanth Kumar R K (Sri.)	Data Entry Operator Gr.1

#### **Cancer Research**

Sreelekha T T (Dr)	Scientific Officer Gr.I
Hareendran N K (Sri.)	Research Assistant Gr. I
Leela A (Smt.)	Senior Animal House

	Neepei
Vikraman Nair K (Sri.)	Senior Animal House
	Keeper
Clinical Laboratory	
Thomas Abraham (Dr)	Scientific Officer Gr. I
Gangadevi C (Smt.)	Technical Officer
Usha J (Smt.)	Technical Officer
Helen B (Smt.)	Lab. Technician Sel.Gr.
Renuka P (Smt.)	Lab. Technician Sel.Gr.
Ajaya Kumar R (Sri.)	Lab. Technician Sr.Gr.
Jaya Kumar B (Sri.)	Lab.Technician Sr.Gr.
Rajesh K R (Sri.)	Lab.Technician Sr.Gr.
Riyad R A (Sri.)	Lab.Technician Sr.Gr.
Saneela S (Smt.)	Lab.Technician Sr.Gr.
Sindhumony S (Smt.)	Lab.Technician Sr.Gr.
Sini L S (Smt.)	Lab.Technician Sr.Gr.
Sreelekha V K (Smt.)	Lab.Technician Sr.Gr.
Trophy S (Sri.)	Lab.Technician Sr.Gr.
Veena Devi Thankachy V S (S	mt.) Lab.Technician Sr.Gr.
Girija R (Smt.)	Clinical Records Assistant
Anil Kumar R (Sri.)	Senior Helper
Clinical Services & Medical	Records
Raveendran Nair R (Sri.)	Administrative Officer
	(Clinical Services)

Medical Records Officer

Public Relations Officer

Clerk Gr. I

Clerk Gr. I

Chandrika D (Smt.)

Ambily 0 (Smt.)

Anil Kumar K (Sri.)

Surendran Nair V (Sri.)

Keeper

## **MISCELLANEOUS**

	,
Annamma J (Smt.)	Clerk Gr. I
Geetha O (Smt.)	Clerk Gr. I
John S (Sri.)	Clerk Gr. I
Kumari Bindu P K (Smt.)	Clerk Gr. I
Mariamma M A (Smt.)	Clerk Gr. I
Mohanachandran Nair C (Sri.)	Clerk Gr. I
Prabhavathi Devi AK (Smt.)	Clerk Gr. I
Pradeep Kumar B (Sri.)	Clerk Gr. I
Siju R. Nair (Smt.)	Clerk Gr. I
Sreekumar B (Sri.)	Clerk Gr. I
Sreelatha S (Smt.)	Clerk Gr. I
Thankamony Amma P (Smt.)	Clerk Gr. I
Sivasankara Pillai K (Sri.)	Pharmacist Gr. I
Dinesh P S (Sri.)	Pharmacist Gr. I
Saraladevi P G (Smt.)	Cashier Sel.Gr.
Sheela Kumari R (Smt.)	Cashier Sel.Gr.
Shajkumar K R (Sri.)	Office Assistant Sr. Gr.
Bindu Sadasivan (Smt.)	Clinical Records Assistant
Gireesh S (Sri.)	Clinical Records Assistant
Jayalekshmi P (Smt.)	Coding Clerk
Rajesh V M (Sri.)	Data Entry Operator
Satheeshkumar K S (Sri.)	Tel. Operator Cum
	Receptionist Gr. I
Sreekumar C (Sri.)	Tel. Operator Cum Receptionis
Krishnadasan T P (Sri.)	Driver Sel.Gr.
Krishnan Nair P (Sri.)	Driver Sel.Gr.
Sasidharan Nair N (Sri.)	Driver Sel.Gr.
Sreekumaran Nair P (Sri.)	Driver Sr.Gr.
Nazaruddin S (Sri.)	Driver Gr. I
Premachandran Nair S (Sri.)	Driver Gr. I
Ajitha Kumari R B (Smt.)	Senior Helper
Mariyamma Varghese (Smt.)	Senior Helper
Subair M (Sri.)	Senior Helper
Sudharma T P (Smt.)	Senior Helper
Thomas Rajasekharan (Sri.)	Senior Helper
Amrithamma M (Smt.)	Hospital Attender
Sivankutty K (Sri.)	Hospital Attender
Gangadharan V (Sri.)	Gardener
Community Oncology	

#### Community Oncology

Sreekumar C (Sri.)	Social Investigator Sr.Gr.
Jeena Joseph N (Smt.)	Protocol Nurse
Vindhya Sugathan (Smt.)	Data Entry Operator Gr.I

#### **Director's Office**

Savithri Amma B (Smt.)	Junior Personal Assistant
Antony P (Sri.)	Despatcher
Senan S (Sri.)	Senior Helper

#### ECDC, Ernakulam

Latha A (Dr)	Cytopathologist
James Thomas M (Sri.)	Cytotechnician Sel.Gr.
Mercy Joseph K (Smt.)	Cytotechnologist Sr.Gr.
Radha C (Smt.)	Cytotechnologist Sr.Gr.
Lijo T V (Sri)	Lab.Technician Sr.Gr.
Renjini Thomas (Smt.)	Lab.Technician Sr.Gr.

Ambika T B (Smt.)	Staff Nurse Sr. Gr.
Gracy George (Smt.)	Staff Nurse
Letha B (Smt.)	Typist Gr. I
Gopakumar P (Sri.)	Helper
Dass G (Sri.)	Hospital Attender
John Evidus P P (Sri.)	Hospital Attender

#### ECDC, Palakkad

Sanil P N (Sri.)	Cytotechnologist
Nirmala K C (Smt.)	Staff Nurse Gr. I
Abdul Rahiman P M (Sri.)	Senior Helper

#### **Engineering Wing**

Engineering Wing	
Vijaya Kumar L (Sri.)	Chief Construction Engineer
Rajendran K R (Sri.)	Supervisor (Electrical) Sr.Gr.
Santhosh Kumar A R (Sri.)	Supervisor (Electrical) Sr.Gr.
Sasidharan N (Sri.)	Supervisor (Electrical) Sr.Gr.
Venugopalan Nair V R (Sri.)	Supervisor (Electrical)
Giji P S (Sri.)	Electrician Sr.Gr.
Jayakumar P (Sri.)	Electrician Gr.I
Rajmohan M B (Sri.)	Electrician Gr.I
Suresh Kumar G (Sri.)	Electrician
Sivarajan L (Sri.)	Electronic Technician Sr.Gr.
Suseela P (Smt.)	Junior Personal Assistant
Harikumar S (Sri.)	Semi Skilled Worker
Jayabalan Nair B (Sri.)	Semi Skilled Worker
Rajan P C (Sri.)	Senior Helper

#### Finance & Accounts

Uma Maheswari K. (Smt.)	Controller of Finance
Rajan M A (Sri.)	Accounts Officer
Beena N (Smt.)	Asst. Accounts Officer
Girija Kumari L S (Smt.)	Office Assistant Sr.Gr.
John Joseph (Sri.)	Office Assistant
Johnson X (Sri.)	Cashier Cum Receptionist Gr.I
Jumailathu Beevi K M (Smt.)	Office Assistant Sel.Gr.
Sasikumar K (Sri.)	Asst.Internal Audit Officer
Usha V (Smt.)	Data Entry Operator Sr.Gr.
Usha Varma (Smt.)	Office Assistant Sr.Gr.

#### mageology

Imageology	
Asha S (Smt.)	Radiographer
Binoy B G (Sri.)	Radiographer
Hari C (Sri.)	Dark Room Asst. Gr. I
Jayakumar P(Sri.)	Radiographer
Joe D'cruz A (Sri.)	Technical Officer
Krishnankutty R (Sri.)	Senior Helper
Mallika Devi S (Smt.)	Junior Personal Assistant
Pradeep S (Sri.)	Radiographer Sel.Gr.
Prasad P P (Sri.)	Radiographer Sel.Gr.
Santhosh Kumar C S (Sri.)	Hospital Attender
Sathyalekha S I (Smt.)	Radiographer Sel.Gr.
Shailesh Kumar K N (Sri.)	Radiographer Sel.Gr.
Udayakumar K R (Sri.)	Radiographer Sr.Gr.
Sini F K (Smt.)	Radiographer
Sreelekha L D (Smt.)	Radiographer
Veena R R (Smt.)	Radiographer

### **MISCELLANEOUS**

#### Information Systems

Neelima N (Smt.) Raiesh P (Sri.) Shaji J (Sri.) Pradeep Chandran (Sri.) Jayanthy J K (Smt.) Suseela Devi B (Smt.)

Systems Manager System Analyst System Analyst Asst. Programmer Gr. I Data Entry Operator Sr.Gr. Data Entry Operator Sr.Gr.

#### **Library & Information Services**

Vishnu V (Sri.) Saii S Nair (Sri.) Ganga A P (Smt.) Balachandran K G (Sri.) Vijayakumaran Nair R (Sri.) Library Assistant Gr. I Library Assistant Gr. I Clinical Records Assistant Senior Helper Audio Visual Operator Gr. I

#### **Medical Oncology**

Lali V S (Dr)

Resident Medical Officer Gr.I

#### **Nuclear Medicine**

Sheela V (Smt.) Sheeja S R (Smt.) Suja B R (Smt.) Saritha V S (Smt.) Sibi K S (Smt ) Sunitha S (Smt.) Bindu B (Smt.) Minyamma K (Smt.) Sindhu P (Smt.) Ananda Kumar K (Sri.) Usha R (Smt.)

Technical Officer Radiographer Sel.Gr. Radiographer Sel.Gr. Radiographer Sr.Gr. Radiographer Radiographer R I A Technician Sr. Gr. R I A Technician Sr. Gr. R I A Technician Sr. Gr. RIA Technician Gr. I Data Entry Operator

#### **Nursing Services**

Sreelekha R (Smt.) Flower Augustine (Smt.) Aleykutty P M (Smt.) Geetha S (Smt.) Christeen V (Smt.) Geetha Kumari B S (Smt.) Jaya T S (Smt.) Jikki M (Smt.) Lizyamma Jacob (Smt.) Mariamma James (Smt.) Prasanna Kumari S (Smt.) Rajila Beegum (Smt.) Sheeba S V (Smt.) Shobha S (Smt.) Sunitha Kumari R (Smt.) Vijaya A K (Smt.) Vijayalekshmy Ammal (Smt.) Aniamma Joseph (Smt.) Sally Abraham (Smt.)

Shamla Beevi A (Smt.)

Shema C (Smt.)

Sindhu S (Smt.)

Sheela Rodriguez (Smt.)

Aleyamma Mathew (Smt.)

Bensamma Varghese (Smt.)

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

Staff Nurse Sr. Gr.

Sindhu G S (Smt.) Siva Kumari P R (Smt.) Abraham Shini (Smt.) Ajitha S (Smt.) Ajitha T L (Smt.) Aleyamma Chacko (Smt.) Anila Kumari S (Smt.) Bindhu M (Smt.) Bini A (Smt.) Binu 0 (Smt.) Chandrika P (Smt.) Elsamma Joseph (Smt.) Geetha Kumari D (Smt.) Ilin William (Smt.) Indira Devi G (Smt.) Indu V S (Smt.) Jessy Thomas (Smt.) Jino V K (Smt.) Joby Paul (Smt.) Kumari Sindhu S (Smt.) Laly Joseph (Smt.) Leemol Mathew (Smt.) Mangalam S (Smt.) Marykutty Mathew (Smt.) Maya K B (Smt.) Moly M T (Smt.) Nisha Vidyadhar R (Smt.) Ranichandra V (Smt.) Rethidevi G S (Smt.) Sajitha S (Smt.) Santhi Rani N (Smt.) Saraswathy Amma P (Smt.) Sheeba P (Smt.) Sherly M (Smt.) Shijikumary N G (Smt.) Sindhumol M G (Smt.) Sophiya Lilly (Smt.) Sujitha Kumari V S (Smt.) Suma P V (Smt.) Swapna C R (Smt.) Ajila M S (Smt.) Ajitha S (Smt.) Amrutha L Raj (Smt.) Aneeta J George (Smt.) Anitha Kumary P V (Smt.) Annamma E J (Smt.) Anupama B (Smt.) Anupama Susmitha (Smt.) Aparna B (Smt.) Aradhana S (Smt.) Archana M.Nair (Smt.) Ariya Sreedharan B (Smt.) Aswathy M R (Smt.) Beena K G (Smt.)

Beena Koshy (Smt.)

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

Staff Nurse

### **MISCELLANEOUS**

Beena Kumari N (Smt.)	Staff Nurse
Bency Varghese (Smt.)	Staff Nurse
Biji P R (Smt.)	Staff Nurse
Bincy Lukose (Smt.)	Staff Nurse
Bindhu K G (Smt.)	Staff Nurse
Bindhu P D (Smt.)	Staff Nurse
Bindhu Rani P V (Smt.)	Staff Nurse
Bindu Kumari T C (Smt.)	Staff Nurse
Bini R (Smt.)	Staff Nurse
Cherupushpam M (Smt.)	Staff Nurse
Chithra V G (Smt.)	Staff Nurse
Deepa Davis (Smt.)	Staff Nurse
Deepa A S (Smt.)	Staff Nurse
Deepa T P (Smt.)	Staff Nurse
Divya Das S (Smt.)	Staff Nurse
Girija L (Smt.)	Staff Nurse
Gracy Sebastian (Smt.)	Staff Nurse
Indulekha K S (Smt.)	Staff Nurse
Jainamma Standal (Smt.)	Staff Nurse
Jayasree C G (Smt.)	Staff Nurse
Jeeja Rajan (Smt.)	Staff Nurse
Jincy K J (Smt.)	Staff Nurse
Jyothilekshmi D (Smt.)	Staff Nurse
Kavitha S G (Smt.)	Staff Nurse
Kumari Sobha D (Smt.)	Staff Nurse
Kumari Thankam S (Smt.)	Staff Nurse
Latha S (Smt.)	Staff Nurse
,	Staff Nurse
Ligi Das R S (Smt.)	
Lija K (Smt.)	Staff Nurse
Linsa George (Smt.)	Staff Nurse
Lizy Varkey (Smt.)	Staff Nurse
Manju M S (Smt.)	Staff Nurse
Manju VP (Smt.)	Staff Nurse
Manjusha G S (Smt.)	Staff Nurse
Mareena Silas (Smt.)	Staff Nurse
Maya N Nair (Smt.)	Staff Nurse
Maya P V (Smt.)	Staff Nurse
Maya S S (Smt.)	Staff Nurse
Mayadevi L (Smt.)	Staff Nurse
Nisha K N (Smt.)	Staff Nurse
Nisha K Thomas (Smt.)	Staff Nurse
Preeja S (Smt.)	Staff Nurse
Preetha A (Smt.)	Staff Nurse
Preetha S (Smt.)	Staff Nurse
Preethi P R (Smt.)	Staff Nurse
Priya K L (Smt.)	Staff Nurse
Rajani Benchamin (Smt.)	Staff Nurse
Rajani R V (Smt.)	Staff Nurse
Rajaram S K (Sri.)	Staff Nurse
Raji K R (Smt.)	Staff Nurse
Rajitha V P (Smt.)	Staff Nurse
Reena A (Smt.)	Staff Nurse
Rejani Mole A (Smt.)	Staff Nurse
Rema Devi R (Smt.)	Staff Nurse

Staff Nurse

Renjusha V (Smt.)	Staff Nurse
Resmi V (Smt.)	Staff Nurse
Roja S Anand (Smt.)	Staff Nurse
Rosamma Joseph (Smt.)	Staff Nurse
Rugmini M D (Smt.)	Staff Nurse
Saji G S (Smt.)	Staff Nurse
Salini G S (Smt.)	Staff Nurse
Saloma PS (Smt.)	Staff Nurse
Sandhya V Nair (Smt.)	Staff Nurse
Sandhyamol K S (Smt.)	Staff Nurse
Sangeetha K S (Smt.)	Staff Nurse
Saritha SS (Smt.)	Staff Nurse
Shajila R (Smt.)	Staff Nurse
Sheeba P Varghese (Smt.)	Staff Nurse
Sheeba V L (Smt.)	Staff Nurse
Sheeja B T (Smt.)	Staff Nurse
Sheeja D B (Smt.)	Staff Nurse
Sheeja M S (Smt.)	Staff Nurse
Sheeja Samuel (Smt.)	Staff Nurse
Sherin John Karottu (Smt.)	Staff Nurse
Sherry M (Smt.)	Staff Nurse
Shiljoe Jose V (Sri.)	Staff Nurse
Shiny F (Smt.)	Staff Nurse
Shiny George (Smt.)	Staff Nurse
Shiny P Thankappan (Smt.)	Staff Nurse
Simmy Panicker S (Smt.)	Staff Nurse
Sindhu G (Smt.)	Staff Nurse
Sindhu K (Smt.)	Staff Nurse
Sindhu Kumari L (Smt.)	Staff Nurse
Sindhu L (Smt.)	Staff Nurse
Sindhu P Nair (Smt.)	Staff Nurse
Sindhu R (Smt.)	Staff Nurse
Sindhu V (Smt.)	Staff Nurse
Sindhumole L K (Smt.)	Staff Nurse
Sithara Balakrishnan (Smt.)	Staff Nurse
Smitha S Mani (Smt.)	Staff Nurse
Soni John (Smt.)	Staff Nurse
Sreeja A P (Smt.)	Staff Nurse
Sreeja S (Smt.)	Staff Nurse
Sreekala P (Smt.)	Staff Nurse
Sreekala T (Smt.)	Staff Nurse
Sreekumaran Pillai V (Sri.)	Staff Nurse
Sreelatha C S (Smt.)	Staff Nurse
Sreelekha S (Smt.)	Staff Nurse
Sreesha C K (Smt.)	Staff Nurse
Sukanya Kumari S R (Smt.)	Staff Nurse
Suma V (Smt.)	Staff Nurse
Suma John (Smt.)	Staff Nurse
Suma K (Smt.)	Staff Nurse
Suma P S (Smt.)	Staff Nurse
Sumathy P (Smt.)	Staff Nurse
Suni Mathew (Smt.)	Staff Nurse
Sunitha L (Smt.)	Staff Nurse
Swapna K (Smt.)	Staff Nurse
Inoro L L IL mt I	Ctatt Nices

Thara S S (Smt.)

Staff Nurse

Renjini R S (Smt.)

### **MISCELLANEOUS**

Vasanthakumari R (Smt.) Staff Nurse Staff Nurse Vasumathy G (Smt.)

#### Pain & Palliative Care

Prasanth C V (Dr.) Resident Medical Officer Manju Achamma Varghese (Dr.) Resident Medical Officer

#### **Pathology**

Sindhu Nair P (Dr.) Resident Medical Officer Najeeya S (Smt.) Technical Officer Jayalal K S (Sri.) Cytotechnologist Sr.Gr. Mani K S (Sri.) Cytotechnologist Sr.Gr. Veena V S (Smt.) Cytotechnologist Sr.Gr. Anitha S (Smt.) Cytotechnologist Nataraj A (Sri.) Cytotechnician Sel.Gr. Brinda T P (Smt.) Lab.Technician Sel.Gr. Saina A (Smt.) Lab.Technician Sel.Gr. Sulochana S (Smt.) Lab.Technician Sel.Gr. Jayasree P S (Smt.) Lab.Technician Sr.Gr. Jiju J S (Sri.) Lab.Technician Sr.Gr. Lathamalathy L (Smt.) Lab.Technician Sr.Gr. Sherly K Ninan (Smt.) Data Entry Operator Gr. I Hospital Attender Vijayakumar C (Sri.)

#### **Pharmacy & Store**

Pharmacist Gr. I Suresh G (Sri.) Vimal Kumar Y S (Sri.) Helper

#### **Project Cell**

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

#### **Radiation Physics**

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

Maheswari J (Smt.) Radiographer Sr.Gr. Mariamma Jacob (Smt.) Radiographer Sr.Gr. Mini V L (Smt.) Radiographer Sr.Gr. Rajesh P R (Sri.) Radiographer Sr.Gr. Sindhu S S (Smt.) Radiographer Sr.Gr. Abhilash Sudh S S (Sri.) Radiographer Asa Rani K S (Smt.) Radiographer Lal K Nair (Sri.) Radiographer Manju P M (Smt.) Radiographer Maya M (Smt.) Radiographer Salini G S (Smt.) Radiographer Seena C S (Smt.) Radiographer Sheena J (Smt.) Radiographer Shinu R S (Sri.) Radiographer Sunitha Kumari U P (Smt.) Radiographer Vinod S L (Sri.) Radiographer Sreekala D (Smt.) Mould Room Technician Sel.Gr. Santhosh Kumar M S (Sri.) Electronic Technician

#### Security

Jyothikumar S (Sri.) Sergeant

#### Surgical Oncology

Divya Raj (Dr) Resident Medical Officer Mohanan Pillai B (Sri.) Theatre Technician (Aneasthesia) Sr.Gr. Abin Issac (Sri.) Operation Theatre Technician Damodara Sarma E (Sri.) **Operation Theatre** Technician Rajendran Nair P (Sri.) **Operation Theatre** Technician Devaraja Panicker K (Sri.) Senior Helper Jayasree S (Smt.) Typist Gr. I Viswakumar N (Sri.) Typist Gr. I Suresh P S (Sri.) Senior Helper Thankappan Chettiyar K (Sri.) Senior Helper

#### **Transfusion Medicine**

Louis T C (Sri.)

Resident Medical Officer Jayalekshmi P (Dr.) Rajesh R Chandran (Dr.) Resident Medical Officer Renukadevi V (Smt.) Lab Technician Sel Gr Asha S R (Smt.) Lab.Technician Sr.Gr. Bindu A P (Smt.) Lab.Technician Sr.Gr. Mini S P (Smt.) Lab.Technician Sr.Gr.

Hospital Attender

### **MISCELLANEOUS**

#### d. DISMISSALS/RETRENCHMENTS: NIL

#### e. RETIREMENTS

Dr. Elizabeth K. Abraham, Professor of Pathology & Additional Director (Retd. on 30.04.2009)

Dr. Suresh Chandra Dutt, Additional Professor of Radiotherapy (Retd. on 30.04.2009)

Dr. A.S. Krishnakumar, Additional Professor of Imageology (Retd. on 30.04.2009)

Sri. M. Chandrakumaran Nair, Senior Library & Information Officer (Retd. on 30.04.2009)

Sri. R. Harikumar, Anaesthesia Technician Gr. I (Retd. on 30.06.2009)

Dr. R. Manjula, Resident Medical Officer, Pain & Palliative Care (Retd. on 31.07.2009)

#### 2. Right To Information Act

#### a. Public Information Officers

Sri. V. Shyam Mohan, Administrative Officer

Sri. M.A. Rajan, Accounts Officer (Till 10.06.09)

Smt. N. Beena, Accounts Officer in-charge (From 20.06.09)

Smt. N. Neelima, Systems Manager

Sri. R. Raveendran Nair, Administrative Officer (Clinical Services)

#### b. Assistant Public Information Officers

Smt. B. Lalitha, Assistant Administrative Officer Gr. I

Sri. S.V. Sasikumar, Purchase Officer

Smt. N. Beena, Assistant Accounts Officer

Sri. V. Surendran Nair, Public Relations Officer

#### c. Appellate Authority

Dr. K. Ramachandran, Director-in-charge (Till 23.08.09)

Dr. Paul Sebastian, Director (From 24.08.09)

#### d. Number of Applications

Received: 53

Disposed : 55 (including 4 pending applications of the previous year)

Pending : 2

e. Penalties levied for non-supply of information : Nil f. Cases pending with State Information Commission : Nil

#### 3. Internal Control Mechanism

a. Staff used exclusively for internal audit : 1 b. Audit committee meetings : Nil

c. Monitoring committees set up: Administrative committee consisting of all HODs, Medical Superintendent and Additional Directors with the Director as the Head, meets periodically to evaluate the functioning of the Centre.

#### 4. Other matters

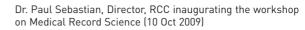
a. Grievance redressal mechanism : Committee for redressal of complaints of

sexual harassment against female employees.

b. Official language act : Not implemented : Progressing



Smt. P. K. Sreemathy Teacher, Hon. Minister for Health & Social Welfare, inaugurating the Workshop on 'World No-Tobacco Day' (31 May 2009)















Dr. Kiran Bedi on her visit to RCC (24 Feb 2010)



Dr. Richard Love, Director, Breast Cancer Research Foundation on his visit to RCC (28 Jan 2010)



### FOUNDATION STONE LAYING CEREMONY OF THE NEW BLOCK (2 MAR 2010)









ACCOUNTS 2009-2010

# REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg. No. 567/81) BALANCE SHEET AS ON 31st MARCH 2010

Rs. Ps. 824,530,516.52 Capita 35,039,723.84 I Capita						כמו יכוור וכמו
_=		Rs. Ps.	Rs. Ps.			Rs. Ps.
_ =						
=	Capital Fund	1020096409.17	817831874.11		Fixed Assets	1013397766.76
=	Specific Funds	62728804.91	225693401.00	II/	Investments	202851014.00
71,793,749.00 State (	State Govt: Grant	32650000.00			Current Assets And Loans And Advances	
484,581.00 CCL Fund	pun_	78059332.00	35251331.18	⋖	Closing Stock	44683101.00
III Adv. R	Adv. Received For Research Projects	484581.00	7814685.20	IIIA	Advances - Others	15336331.20
49,254,167.54 Currer	Current Liabilities And Provisions		75631856.64	×	Investigation Fees Receivable	90675565.91
26,292,157.00 IV Currer	Current Liabilities-others	61744515.78	12077539.48	×	Balance With Banks	35081944.41
37,646,939.00 Provisi	Provision For Gratuity	18078473.00				
454,709,137.16 V Credit	Creditors For Goods Supplied	49265498.00	518943.37	$\equiv$	Cash In Hand	286432.58
VI Provis	Provision For Depreciation	524234515.15	395232616.08	×	Income & Expenditure A/C	444919673.15
1,570,052,247.06 Total		1847342129.01	1570052247.06		Total	1847231829.01

Significant Accounting Policies &  $\equiv \geq$ 

Notes On Accounts

Schedules 'I' To 'XIV' And 'A' Form An Integral Part Of This Balance Sheet.

Vide My Report Of Even Date Attached

**Uma Maheswary K** Dr. Paul Sebastian Director

**Thiruvananthapuram** 27.09.2010

Controller Of Finance

For Santhosh Alexander & Associates Santhosh Alexander, FCA, Chartered Accountants

M. No. 207251, Partner

# INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2010. REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg.No. 567/81)

Previous Year	Schedule	Expenditure	Current Year	Previous Year	Schedule	Income	Current Year
Rs. Ps			Rs. Ps	Rs. Ps			Rs. Ps.
25617884.00		Opening Stock	35251331.18	63113000.00		Grant-in-aid; Govt of Kerala	112720255.35
275288203.55	∢	Purchases Medicines, Chemicals etc.	313331548.74	26703.00		Donations	0.00
171263388.65	В	Salaries and Allowances	267359171.05	186015692.50		Investigation Fees	201819114.06
661651.00		Uniform and Liveries	304866.00	258509005.99		Medicine Receipts	304662289.17
858042.00	O	Rent, Rates & Taxes	1049841.00	6580557.40		Interest Income	9423321.95
325116.50	٥	Postage, Telephone & Telegrame	318939.00	2439215.89	エ	Training Fees	1527122.00
245423.00	ш	Travelling Expenses	208676.00	2275982.99		Miscellaneous Income	7027106.36
1553378.00		Printing & Stationery	1548615.26	35251331.18	A	Closing Stock	44683101.00
107646.00		Advertisement Charges	826612.00			Excess of Expenditure	
18653751.00	ட	Electricity and Water Charges	16109471.00	9182328.35		over Income	48,538,160.32
6696045.11	9	Repairs & Maintenance	9956925.04				
3801034.00	I	Service Contract Charges	6335327.00				
178755.00		Audit Fees	85000.00				
		Statutory Audit fee	110300.00				
240554.00	_	Computer Expenses	878760.00				
10495.00		Books & Periodicals	10894.00				
1732076.00		Expenses to NTR	2493257.00				
2253304.95		Medicine issues (free)	1971531.10				
423954.46	ſ	Miscellaneous Expenses	194136.00				
0.00		DCCP Expenses	97448.00				
1931562.20		Matress, Linen, Laundry and other					
		Housekeeping Expenses	2432442.85				
51251552.88		Depreciation	69525377.99				
563393817.30		TOTAL	730400470.21	563393817.30		TOTAL	730400470.21

Vide my report of even date attached SIGNIFICANT ACCOUNTING POLICIES & NOTES ON ACCOUNTS  $\equiv \geq$ 

Schedules A to L, XIII and XIV form an integral part of this Statement.

Uma Maheswary K

Dr. Paul Sebastian

Director

**Thiruvananthapuram** 27.09.2010

For Santhosh Alexander & Associates Santhosh Alexander, FCA, Chartered Accountants M. No. 207251, Partner Controller Of Finance

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

ltem Land	Cost On		<b>Gross Block</b>		·	Depreciation		Net Block	ock
Land	1.4.09	Additions	Deduction	Cost On	Up To 31.3.09	Additions	Total Upto	As 0n	As 0n
Land				31.3.2010			31.3.2010	31.3.2010	31.3.09
: :	1000.00	00.00		1000.00	00.00	00.00	00.00	1000.00	1000.00
Buildings	157600039.92	1824110.00		159424149.92	74066610.91	4267876.95	78334487.86	81089662.06	83533429.01
Civil Works	127118.63	00.00		127118.63	83827.22	2164.57	85991.79	41126.84	43291.41
Cobalt Unit	18123455.30	00.00		18123455.30	13217435.65	735902.95	13953338.60	4170116.70	4906019.65
Water Supply And Drainage	2747345.43	1315654.00		4062999.43	2039542.45	303518.55	2343061.00	1719938.43	707802.98
Furniture And Fittings	14063093.48	1235701.00		15298794.48	8225059.84	707373.46	8932433.30	6366361.18	5838033.64
Office Equipments	2585693.43	00.00		2585693.43	2182252.30	60516.17	2242768.47	342924.96	403441.13
Hospital & Lab. Equipments	397424391.97	151540132.00		548964523.97	217710071.31	49688167.90	267398239.21	281566284.76	179714320.66
Electrical Installation	40316509.90	1549934.00		41866443.90	34424548.52	1116284.31	35540832.83	6325611.07	5891961.38
Fire Detection	3847645.00	158642.00		4006287.00	3430504.68	86367.35	3516872.03	489414.97	417140.32
Air Conditioning	21579172.35	1483219.00		23062391.35	16812933.40	937418.69	17750352.09	5312039.26	4766238.95
Computer Hardware And Software	5481244.00	1901719.00		7382963.00	4976732.92	1443738.05	6420470.97	962492.03	504511.08
Gas And Cylinder	7442079.05	98041.00		7540120.05	6205182.44	200240.64	6405423.08	1134696.97	1236896.61
Vehicles	1325445.60	00.00		1325445.60	623639.84	140361.15	764000.99	561444.61	701805.76
Library Books And Journals	29834465.65	5023741.00		34858206.65	17146324.82	2656782.27	19803107.09	15055099.56	12688140.83
Lift And Elevator	5913240.00	00.00		5913240.00	5364747.07	82273.94	5447021.01	466218.99	548492.93
Assets (Donations)	337612.00	00.00		337612.00	313809.58	3570.36	317379.94	20232.06	23802.42
Telephone Equipments	4329197.00	14149.00		4343346.00	3005795.49	200632.58	3206428.07	1136917.93	1323401.51
High Energy Linear Accelerator	52987763.00	00.00		52987763.00	29476810.82	3526642.83	33003453.65	19984309.35	23510952.18
Assets-telemedicines Project	7718623.00	00.00		7718623.00	4714498.43	450618.69	5165117.12	2553505.88	3004124.57
Hospital Equipments & Other Assets (Project)	24475292.00	2034872.00		26510164.00	9686621.16	2523531.43	12210152.59	14300011.41	14788670.84
Low Energy Linear Accelerator	3611489.40	00.00		3611489.40	1,002,188.31	391395.16	1393583.47	2217905.93	2609301.09
Builidings Work In Progress	15959958.00	27385978.65		43345936.65				43345936.65	15959958.00
Total	817,831,874.11	195565892.65	00.0	1013397766.76	454,709,137.16	69,525,377.99	524234515.15	489163251.61	363122736.95

### REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (Reg. no. 567/81) CANCER CARE FOR LIFE SCHEME INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2010

Expenditure	Current Year	Income	<b>Current Year</b>
	Rs. Ps.		Rs. Ps.
Salaries & Allowances	250000.00	Interest on FD & Investments	7785755.00
Reimbursement to Patients	8794951.75	Excess of Expenditure over Income	1259196.75
TOTAL	9044951.75	TOTAL	9044951.75

Vide my report of even date attached **Dr Paul Sebastian** DIRECTOR

Thiruvananthapuram, 27.09.2010

Uma Maheswary K. Controller of Finance

For SANTHOSH ALEXANDER & ASSOCIATES Chartered Accountants Santhosh Alexander, FCA., M.No. 207251 Partner

### RCC Annual Report 2009-2010

### **AUDITOR'S REPORT**

- 1. We have audited the attached balance sheet of Regional Cancer Centre Society, Thiruvananthapuram as at 31.03.2010 and the Income and Expenditure Account for the year ended on that date together with the accounting policies and notes annexed thereto. These financial statements are the responsibility of the society's management. Our responsibility is to express an opinion on these financial statements based on our audit.
- 2. We conducted our audit in accordance with auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
- 3. Further to our comments in the Annexure referred to above and subject to,
- 1. Significant Accounting Policies No. 4 in the case of new assets provision for depreciation has been made for the whole year, and Notes on Accounts No. 4 regarding non provision of Leave Salary.
- 2. Investigation fee receivable, Creditors for goods supplied, other current liabilities and advances are subject to confirmation.
- a) We have obtained all the information and explanations which to the best our knowledge and belief were necessary for the purpose of our audit.
- b) In our opinion proper books of accounts have been maintained by the Society.
- c) The Balance sheet and Income and Expenditure account dealt with by this report are in agreement with the books of accounts.
- d) Subject to our observations mentioned above, in our opinion and to the best of our information and according to the explanations given to us, the said accounts together with the notes thereon attached thereto give a true and fair view in conformity with the accounting principles generally accepted in India
- (a) In the case of Balance sheet of the state of affairs of the society as at 31st March 2010.
- (b) In the case of the Income and Expenditure account of the deficit of the society for the year ended on that date.

Thiruvananthapuram, 27.09.2010

For SANTHOSH ALEXANDER & ASSOCIATES

Chartered Accountants

Santhosh Alexander, FCA., M. No. 207251

Partner

### SCHEDULE – XIII SIGNIFICANT ACCOUNTING POLICIES

### 1. Basis of Preparation of Financial Statements

To prepare Financial Statements in accordance with the historical cost convention, Generally Accepted Accounting Principles (GAAP) in India and the Accounting Standards issued by the Institute of Chartered Accountants of India.

### 2. Revenue Recognition

To recognize income from services at the time of delivery of services. To recognize income from investments when the income actually received.

### 3. Fixed Assets

To state Fixed Assets at Original Cost of acquisition and subsequent improvements thereto inclusive of freight, duties and taxes and incidental expenses related to acquisition and installation. To include related preoperational expenses in respect of projects involving construction in the value of capitalized assets.

### 4. Depreciation

To provide depreciation on all the assets held, on the written down value method at the rates adopted by the Society. To provide for depreciation for the whole year in respect of assets put to use for a part of the year.

### 5. Inventories

To value all the inventories at cost or net realizable value whichever is less. Cost includes freight and other related incidental expenses and is computed on weighted average method.

### 6.Borrowing Costs

To capitalize the borrowing costs that are directly attributable to the acquisition or construction of that capital asset and to recognize other borrowing costs as expense in the period in which they are incurred.

### 7. Government Grants

a) To account for Government Grants received as Capital Receipts [Shown as Capital Fund in the balance sheet] to the extent such grants are applied for the acquisition or construction of Fixed Assets and to treat the balance (if any) as Revenue Income.

b) The amount Rs. 3,26,50,000/- shown as state Govt. grant in the balance sheet represent the state govt grant utilized for opening LC for acquiring fixed assets.

**Dr. Paul Sebastian** DIRECTOR

Uma Maheswary K.
CONTROLLER OF FINANCE

Thiruvananthapuram, 27.09.2010

For SANTHOSH ALEXANDER & ASSOCIATES
Chartered Accountants

Santhosh Alexander , FCA., M. No. 207251 Partner

## RCC Annual Report 2009-2010

### SCHEDULE - XIV NOTES ON ACCOUNTS

### 1. Contingent Liabilities

A liability of Rs. 1,04,67,369/- plus interest towards the property tax for the period upto 31.03.2010 is treated as a Contingent Liability and has not been provided for in the books of account.

### 2. Investigation

Investigation Fee includes Registration, Ward Charges, Nuclear Medicine, Radiotherapy, Imageology, Surgery, and Lab fee.

### 3. Interest on Treasury Deposits of CCL

Interest on Deposits of the CCL with the Treasury is accounted on Cash Basis.

### 4. Employee Benefits

Provision for Leave Salary has not been done.

### 5. Impairment of Assets

There is no indication of impairment of assets as per AS-28

### 6. Classification and Presentation

Figures for the previous year have been regrouped and recast wherever necessary to suit the current year's layout.

7. Long outstanding dues under the schedule Investigation fee receivable is yet to be ascertained.

Dr. Paul SebastianUma Maheswary K.DIRECTORCONTROLLER OF FINANCE

For SANTHOSH ALEXANDER & ASSOCIATES

Chartered Accountants

Santhosh Alexander, FCA.,

M No. 207251, Partner

Thiruvananthapuram 27.09.2010

### **UTILISATION CERTIFICATE**

1. During the 2009-10, the Regional Cancer Centre Siciety received Grant in Aid totaling Rs.2686 Lakhs from the Govt. of Kerala as detailed below.

Installment	G.O.Numbers	Amount (Rs. In Lakhs)
1	G.O.(Rt)No.1515/2009/H&FWD	200.00
2	G.O.(Rt)No.1981/2009/H&FWD	500.00
3	G.O.(Rt)No.2303/2009/H&FWD	200.00
4	G.O.(Rt)No.2961/2009/H&FWD	250.00
5	G.O.(Rt)No.3091/2009/H&FWD	115.00
6	G.O.(Rt)No.3641/2009/H&FWD	200.00
7	G.O.(Rt)No.28/2010/H&FWD	200.00
8	G.O.(Rt)No.865/2010/H&FWD	300.00
9	G.O.(Rt)No.1028/2010/H&FWD	521.00
10	G.O.(Rt)No.450/2010/H&FWD	200.00
	TOTAL	2,686.00

2. The amount was utilised as follows.

Sl. No.	Purpose	Amount (Rs.)
1	Acquisition of Assets	123,229,744.65
2	Opened LC for acquiring fixed Asset [LC No.2909066 & 2909032]	32,650,000.00
3	Operational Expenditure	112,720,255.35
	TOTAL	268,600,000.00

3. We certify that the utilisation mentioned under (2) above is true and correct as disclosed by the Books of Accounts of the Society.

For Santhosh Alexander & Associates Chartered Accountants Santhosh Alexander, FCA., M. No. 207251, Partner

Thiruvananthapuram 27.09.2010

### 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 Travancore Cochin 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 31 March 2010 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 2009-2010 was Rs.2,01,93,339.46
- 2. Foreign contribution worth Rs.1,56,16,493.86 was received by the Association during the year ended 31 March 2010
- 3. The balance in foreign contribution account together with interest earned thereon at the end of the financial year 2009-2010 was Rs.2,67,09,574.17
- 4. Certified that the Association has maintained the accounts of foreign contribution and records relating thereto in the manner specified in section 13 of the foreign contribution (Regulation) Act, 1976 read with rule 8 (1) of the foreign contribution (Regulation) Rules, 1976.
- 5. The information furnished above and in the Balance Sheet and statement of receipts and payments are correct as checked by me.

Thiruvananthapuram 29 September 2010.

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

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

### Foreign contribution for Research Projects Balance Sheet as at 31st March 2010

LIABILITIES	Amt (Rs. Ps.)	Amt (Rs. Ps.)	ASSETS	Amt (Rs. Ps.)
CAPITAL FUND			FIXED ASSETS	
As on 1-4-2009	9531667.84		Computer	2183574.00
			Printer & UPS	271010.00
Add : Utilised for acquiring				
Fixed assets	1571350.00	11103017.84	Fax Machine	51359.00
			Refrigerator	11953.00
			Deep Freezer	123674.00
			Vehicle	2380744.00
Project Balances as Per Schedule		15147973.65	FAN	3687.00
Research Funds as per Schedule		11561600.52	Furniture	668672.29
			Equipments	4076541.00
CURRENT LIABILITIES			Air Conditioner	223239.00
Salary Recovery		38,375.00	Photocopier	322735.00
Sales Tax Payable		6,250.00	Building Addl. Facilitites	785829.55
Payable to res: Project a\c		498216.00	CURRENT ASSETS &	
			LOANS AND ADVANCES	
			Interest Accrued but not due	940226.00
			Term Deposit with Syndicate Bank	3069655.85
			Term Deposit with S.B.T	16918216.00
			Term Deposit with Fed.Bank	1500000.00
			Term Deposit with PNB	1082432.00
			Cash in Hand	24786.00
			Cash at Bank	3681099.32
			Imprest	6000.00
			Rent Deposits	30000.00
TOTAL		38355433.01	TOTAL	38355433.01

Vide my report of even date attached.

Thiruvananthapuram Finance Manager (Projects) 29-Sep-10

**DIRECTOR** 

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

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

### Foreign contribution for Research Projects Receipts and Payments Account for the year ended 31st March 2010

RECEIPTS	Amt (Rs)	PAYMENTS	Amt (Rs)
To Opening balance:-		By Project Expenses:-	
Cash in Hand	14128.00	" Revenue expenses paid	9078382.00
Cash at Bank	4287425.46	" Capital Expenses	1219025.00
Foreign Receipts for various projects	15616493.86	(As per Schedule Attached)	
(As per Schedule attached)		" Term Deposit with SBT	5000000.00
Other receipts	55421.00	Paid to Research Project Account	994044.00
Interest received	133304.00	Paid to RCC	265266.00
S.T received	6250.00	Salary Recovery Account	306354.00
Rent Deposit Received	10000.00	Rent Deposit Paid	2000.00
Salary Recovery Account	305243.00	By Closing balance:-	
Receipts from RCC	142691.00	Cash in Hand	24786.00
		Cash at Bank	3681099.32
TOTAL	20570956.32	TOTAL	20570956.32

Vide my report of even date attached.

Thiruvananthapuram 29 September 2010

Finance Manager (Projects)

**DIRECTOR** 

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

Chaitaniya, T.C.54/2214-2 Sreedharan Pillai Road Pappanamcode P.O. Thiruvananthapuram - 695 018

Telephone: 0471-2495939 Mobile: 9349990489

E-mail: ajithkumarca@yahoo.com

### **AUDITOR'S REPORT**

- 1. I have audited the Balance Sheet of the Project Cell of Regional Cancer Centre, Thiruvananthapuram as at 31st March 2010 and the Income and Expenditure Account together with the Schedules thereon for the year ended on that date.
- 2. Subject to :-
  - Confirmation of the different Project Account Balances
- a. 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.
- b. In our opinion proper books of accounts have been maintained by the Project Cell.
- c. 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 29 September 2010.

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

### REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (REG. No. 567/81) PROJECT CELL

### Financial Assistance received from National Agencies for Research Projects Balance Sheet as on 31st March 2010

Liabilities	Amt	Amt	Assets	Amt	Amt
	(Rs. Ps.)	(Rs. Ps.)		(Rs. Ps.)	(Rs. Ps.)
Capital Fund :-					
Opening Balance					
As per Last B/S	9889740.75		Fixed Assets:- Sch-2		230,154.73
Add: Surplus from Income &					
Expenditure Account for the year	73836.87	9,963,577.62			
R&D Fund	10016519.05		Foreign Contribution		
Add: Additions to the Fund	3461512.00		Receivable Account		498,216.00
Less: Utilised during the year	36619.00	13,441,412.05			
Training Fund (Schedule-5)		5,539,990.90	TERM DEPOSITS :		
			SBT	29138420.00	
Current Liabilities			Punjab Nat. Bank	2588314.00	31,726,734.00
Security Deposits	110488.00				
Project Balances as per Sch-1	27305210.30	27,415,698.30	Cash in Hand - Sch-3		8,117.00
Salary Recovery		9,316.00	Cash at Bank - Sch-4		18,426,952.14
			Purchase Advance		5,000.00
			Other Advance		7,000.00
			Interest Accrued		
			but not Due		1,943,123.00
			Rent Deposit		45,000.00
			TDS		3,479,698.00
TOTAL		56,369,994.87	TOTAL		56,369,994.87

Vide my report of even date attached

Thiruvananthapuram 9/29/2010

Thiruvananthapuram Finance Manager (Projects)

DIRECTOR

T.AJITH KUMAR B.Com, FCA Chartered Accountant Mem. No.209348

### REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM (REG. No. 567/81) PROJECT CELL

### Income and Expenditure Account for the year ended 31st March 2010

Expenditure	Amt (Rs. Ps.)	Income	Amt (Rs. Ps.)
Salary Paid	257045.15	Income from Projects	415672.70
Travelling Expenses	15850.00		
Audit Fee	19500.00		
Printing & Stationery	5208.00		
Computer Stationery	4514.00		
Postage & Telephone Expenses	357.00		
Other Miscellaneous Expenses	1696.00		
Depreciation	37665.68		
Excess of Income Over Expenditure	73836.87		
TOTAL	415672.70	TOTAL	415672.70

Thiruvananthapuram 9/29/2010

Finance Manager (Projects) DIRECTOR

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

### **ACKNOWLEDGEMENTS**

Ministry of Health & Family Welfare, Government of India

Ministry of Information Technology, Government of India

Department of Science and Technology, Government of India

Council of Scientific and Industrial Research, Government of India

Department of Biotechnology, Government of India

Director General of Health Services, Government of India, New Delhi

Department of Health & Family Welfare, Government of Kerala

State Planning Board, Government of Kerala

Director of Health Services, Government of Kerala, Thiruvananthapuram

World Health Organisation, 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

Stony Brook University, New York, USA

National Cancer Institute, Bethesda, Maryland, USA

Memorial Sloan-Kettering Cancer Centre, New York, USA

National Cancer Centre, Singapore

Health Research Foundation, Japan

Kagoshima University, Japan

Finnish Cancer Society, Finland

Indian Council of Medical Research, New Delhi

Atomic Energy Commission, Government of India

Bhabha Atomic Research Centre, Bombay

Indian Space Research Organisation

Sree Chitra Tirunal Institute of Medical Sciences & Technology, Thiruvananthapuram

Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram

Centre for Cellular and Molecular Biology, Hyderabad

University of Kerala, Thiruvananthapuram

Kerala University of Health and Allied Sciences, Thrissur

Mahatma Gandhi University, Kottayam

University Grants Commission

Kerala State Committee on Science, Technology and Environment, Thiruvananthapuram

C-DAC, Thiruvananthapuram

Centre for Earth Science Studies, Thiruvananthapuram

Medical College, Thiruvananthapuram

Sree Avittam Thirunal Hospital for Women and Children, Thiruvananthapuram

Dental College, Thiruvananthapuram

Department of Economics and Statistics, Kerala

Drugs Controller, Thiruvananthapuram

College of Pharmaceutical Sciences, Thiruvananthapuram

Corporation of Thiruvananthapuram

Regional Cancer Association, Thiruvananthapuram

Asianet TV

Kairali TV

Care Plus, Thiruvananthapuram

Asraya, Thiruvananthapuram

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