

OVER THREE DECADES OF CHANGING LIVES



Annual Report 2018-19



REGIONAL
CANCER
CENTRE

THIRUVANANTHAPURAM INDIA



REGIONAL CANCER CENTRE

THIRUVANANTHAPURAM INDIA

- Established as per Govt. of India letter No. T. 20012/5/79-R of October 1980 as one among 6 such Centres in India.
- Government of India letter No. T. 20012/5/79-R Dtd 31 January 1981 as an autonomous centre.
- Registered under Travancore Cochin Literary Scientific and Charitable Societies Registration Act 1955 vide No. 567/81 dated 02.09.1981.
- Designated as a Science & Technology Centre in health sector by State Government as per G. O. (Rt) No. 1521/85/11 H & FWD dated 18.11.1985.

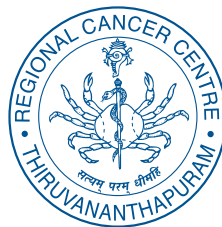
VISION

To emerge as a global leader in cancer control.

MISSION

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

ANNUAL REPORT 2018-2019



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

REGIONAL CANCER CENTRE

Thiruvananthapuram - 695 011, Kerala, India.

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

Published by
Director, Regional Cancer Centre, Thiruvananthapuram

CONTENTS

	Page
I Director's review	vii
II RCC Profile at a Glance	x
III Departments & Divisions	
1. Radiation Oncology	2
2. Surgical Services	4
3. Medical Oncology	6
4. Paediatric Oncology	7
5. Pathology	8
6. Radiodiagnosis	10
7. Nuclear Medicine	11
8. Anaesthesiology	12
9. Radiation Physics	13
10. Clinical Laboratory Services	15
11. Microbiology	17
12. Transfusion Medicine	18
13. Palliative Medicine	19
14. Dental Care	20
15. Nursing Services	21
16. Clinical Services & Medical Records	22
17. Community Oncology	24
18. Cancer Research	26
19. Cancer Epidemiology & Biostatistics	30
20. Library & Information Services	36
21. Information Systems	37
IV Outreach Centres	
E.C.D.C., Ernakulam	38
E.C.D.C., Palakkad	38
N.B.R.R., Karunagappally	39
V Multidisciplinary Clinics	
'A' Clinic (Haematological, Lymphoreticular, Bone & Soft tissue Sarcoma)	41
'B' Clinic (Head & Neck)	42
'C' Clinic (Breast & Central Nervous System)	43
'D' Clinic (Gynaec, Genitourinary & Others)	44
'E' Clinic (Chest & Gastrointestinal)	45
'F' Clinic (Paediatric Oncology)	46
'G' Clinic (Thyroid)	47
VI Public Relations Activities	48
VII Honours, Awards and Recognitions Received	49
VIII Functions, Workshops & Conferences Organised	50
IX Gallery	51
X Conferences Attended and Papers Presented	52
XI Ongoing Research Projects	65
XII Publications	77
XIII Administration, Standing Committees & Right to Information Act	86
XIV Accounts	101
XV Abbreviations used	118
XVI Acknowledgements	119

GOVERNING BODY

1. Shri. Pinarayi Vijayan
Hon'ble Chief Minister of Kerala Chairman
2. Smt. K.K.Shailaja Teacher
Hon'ble Minister for Health and Social Justice, Government of Kerala Vice-Chairperson
3. Shri. Rajeev Sadanandan, IAS
Additional Chief Secretary to Government
Health & Family Welfare Department, Government of Kerala Alt.Vice-Chairman
4. Dr. Sharmila Mary Joseph, IAS (till 31.01.2019)
Secretary, Finance (Expenditure)
Finance Department, Government of Kerala Member

Shri. Manoj Joshi, IAS (from 01.02.2019)
Principal Secretary to Government, Finance Department, Government of Kerala Member
5. Dr.Vishwas Mehta, IAS (till 31.01.2019)
Additional Chief Secretary to Government
Planning & Economic Affairs Department, Government of Kerala Member

Dr.A. Jayathilak, IAS (from 02.02.2019)
Principal Secretary to Government
Planning & Economic Affairs Department, Government of Kerala Member
6. Smt. Preeti Sudan, IAS
Secretary to Government
Ministry of Health and Family Welfare, Government of India Member
7. Dr. S.Venkatesh
Director General of Health Services
Ministry of Health and Family Welfare, Government of India Member
8. Dr.Asha Kishore
Director, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram Member
9. Dr. S.C. Gupta
'Vidya', Pulayanarkotta Road, Thiruvananthapuram Member
10. Dr. Remla Beevi
Director of Medical Education, Government of Kerala Member
11. Dr.Thomas Mathew
Principal, Government Medical College Thiruvananthapuram Member
12. Dr. Paul Sebastian (till 24.08.2018)
Director, Regional Cancer Centre, Thiruvananthapuram Convener

Dr. Rekha A. Nair (from 15.10.2018)
Director, Regional Cancer Centre, Thiruvananthapuram

EXECUTIVE COMMITTEE

1. Shri. Rajeev Sadanandan, IAS
Additional Chief Secretary to Government
Health & Family Welfare Department, Government of Kerala
Chairman
2. Dr. Sharmila Mary Joseph, IAS (till 31.01.2019)
Secretary, Finance (Expenditure)
Finance Department, Government of Kerala
Member
Shri. Manoj Joshi, IAS (from 01.02.2019)
Principal Secretary to Government
Finance Department, Government of Kerala
Member
3. Dr. Vishwas Mehta, IAS (till 31.01.2019)
Additional Chief Secretary to Government
Planning & Economic Affairs Department, Government of Kerala
Member
Dr. A. Jayathilak, IAS (from 02.02.2019)
Principal Secretary to Government
Planning & Economic Affairs Department, Government of Kerala
Member
4. Dr. Remla Beevi
Director of Medical Education,
Government of Kerala
Member
5. Dr. Thomas Mathew
Principal, Government Medical College, Thiruvananthapuram
Member
6. Dr. Paul Sebastian (till 24.08.2018)
Director, Regional Cancer Centre, Thiruvananthapuram
Convener
Dr. Rekha A. Nair (from 15.10.2018)
Director, Regional Cancer Centre, Thiruvananthapuram
Convener



Dr. Rekha A. Nair
Director

DIRECTOR'S REVIEW

Regional Cancer Centre, Thiruvananthapuram (RCC), is an autonomous scientific institution sponsored jointly by the

Government of Kerala and the Government of India receiving financial assistance from both. We indomitably bear the responsibility of cancer care burden not only in Kerala, but neighbouring States also. The Centre maintained the pre-eminence to provide state-of-the-art cancer care for the needy during the period unfolded in this report.

During the period under report, which also marked the 38th year of establishment, the Centre registered 15,627 new patients and seen 2,58,838 review cases. A number of 14966 new patients availed treatment worth of 73.20 crores through various State and Central Government schemes such as Cancer Suraksha Scheme, Chis Plus, Karunya Benevolent Fund, Sukrutham, Thalolam, Scheduled Tribe Patient Fund, Snehasanthwanam for Endosulfan Victims, Prime Minister's Relief Fund, Health Minister's Rashtriya Arogya Nidhi and Health Minister's Discretionary Fund.

In the wake of space constraints that we have been facing, a new building project was taken up to improve the scope of patient services and amenities. The foundation stone of this 14 – storey building was laid by Shri. Pinarayi Vijayan, Hon. Chief Minister of Kerala, on 26th December 2018. The new block is planned in such a way to upgrade the existing facilities and services in areas of radiotherapy, nuclear medicine, bone marrow transplantation, surgery, intensive care unit, leukemia ward, blood bank, library and microbiology. Green protocol, safe management of waste and pollution control measures will be put in place on its completion. In addition, a Digital Radiography and Fluoroscopy system, USG machine with elastography, anaesthesia workstations and ICU ventilators were added to the existing diagnostic and supportive services.

The conduct of 430 cancer detection programmes and 218 cancer education programmes in the period re-affirmed our commitment towards community oriented cancer control activities. The Centre enjoyed the benefits of National Cancer Grid services and continued a lead role in similar initiatives of the State Government on cancer prevention, diagnosis, treatment, education, training and research. Our support was extended to materialize the Kerala Cancer Care Board.

RCC has been playing a key role in generating trained manpower through various academic programmes in superspeciality, postgraduate, post-doctoral, fellowship, graduate and diploma levels. Fellowships in Head and Neck Clinical Oncology, Breast Surgical Oncology, Haematooncology, Oncologic Imaging and Oncosurgical Anaesthesia were added to the existing 21 academic programmes. To comply with MCI standards, Divisions of Radiation Oncology, Medical Oncology, Paediatric Oncology, Pathology and Anaesthesiology were redesignated as Departments. Further, the Division of Imageology was rechristened as Department of Radiodiagnosis and thus there are 7 departments and 14 divisions in the organisational structure.

We had a roster of seminars, workshops and training programmes for professionals to grow in the fast-paced field of oncology. Organisational support in various capacities was extended for events like Annual National Conference of the Association of Radiation Oncologists of India, Annual National Conference of Indian Association of Surgical Oncologists and Annual Conference of the Paediatric Haematology Oncology (Kerala Chapter). Several workshops and hands on training in topics like Basic Life Support, Origami-based Microscopy, Cytogenetics and FISH, Emergency Care, Thoracic and GI Oncology, Genitourinary Oncology, Breast Oncology and Haematologic Malignancies were also conducted during the period. Dr. M.K.C. Nair, Hon'ble Vice Chancellor, Kerala University of Health Sciences. Dr. Revathy Raj, Paediatric BMT Consultant, Apollo Hospitals, Chennai and Dr. Alok Srivasthava, Haematologist, CMC Vellore were the distinguished visitors during the period.

The Centre is credited with a good number of scientific publications as an academic outcome of faculty, residents and researchers. A number of 187 publications during the period covered 98 journal articles, 40 conference papers (abstracts in journals + papers in conference volumes), and a share of chapters in books, academic dissertations and theses. Out of the total journal articles, 96% were appeared in peer reviewed indexed journals. Out of the 178 ongoing research projects, 53 received extramural funding.

The achievements of our dedicated staff and students were acknowledged through awards and honours. Dr. Chandramohan K, Additional Professor, Department of Surgical Services received the Best Doctor Award 2018 (under Autonomous institutions) of the Government of Kerala. Dr. Anila KR, Associate Professor, Department of Pathology received UICC Fellowship for training in Head and Neck Cancer Pathology at Mayo Clinic, USA. One faculty from Cancer Epidemiology & Biostatistics division and four research scholars from the Cancer Research division were awarded PhDs.

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

Being part of the RCC community over a span of 25 years, it is my pleasure to steer this institution towards years of pride and positivity and with this I am presenting this report on various Departments, Divisions, Multidisciplinary Clinics, Outreach Centres and the Audited Accounts of RCC during the period 2018-19.



Dr. Rekha A. Nair
Director



Prof. Paul Sebastian MS
Former Director
(24th August 2009 to 24th August 2018)

One of the significant events during the period was the voluntary retirement of Prof. Dr. Paul Sebastian. He came at the helm of affairs of RCC on 24th August 2009 as a successor to Prof. Dr. B. Rajan. Before assuming the post, he had served RCC in many official capacities as the Professor and Head of the Division of Surgical Oncology and Additional Director. He was instrumental in introducing state-of-the-art surgical oncology services in the Centre. He received training in advanced areas of surgical oncology from reputed international institutions and has about 200 scientific publications in the form of articles in national/international journals, conference papers, books and chapters to his credit.

As Director, he set the priorities in strengthening the infrastructural facilities, patient amenities as well as for elevating the academic status of the Centre. He was instrumental in the commissioning of Picture Archiving and Communication System, PET-CT scan, new linear accelerators, strengthening of Clinical laboratory, Blood bank, Microbiology services, etc. It was during his tenure that the Centre was elevated to the status of the State Cancer Institute and achieved the coveted NABH accreditation. Apart from further uplifting the academic and teaching activities by introducing MCI approved postgraduate and superspeciality courses, fellowship programmes and advanced courses for the paramedics, he also played an important role in introducing a pension scheme for the RCC staff. A new 10 storey building was built and commissioned and also succeeded in obtaining the administrative sanction from the State Government for a new 14 storey building. He also set the ball rolling for a second campus at Pulayanarkotta.

RCC Profile at a Glance

- 15,627 new cases
- 2,58,838 review cases
- 915 daily average patient visits
- 11,568 in-patient admissions
- 49,992 pathology reports
- 67,788 imaging studies
- 82,738 nuclear medicine studies
- 4,17,899 clinical laboratory investigations
- 34,747 microbiology investigations
- 36,986 units blood products issued
- 2927 cytogenetics, FISH & RT-PCR based diagnostic studies
- 6805 patients were treated with external radiotherapy
- 1771 brachytherapy procedures
- 5756 surgical and 2969 endoscopic procedures
- 11,939 patients were administered chemotherapy
- 37 bone marrow transplantations
- 33 residents in Medical, Paediatric and Surgical Oncology superspeciality courses
- 42 residents in Anaesthesia, Pathology and Radiotherapy postgraduate courses
- 30 PhD scholars
- 430 cancer detection programmes and 218 cancer education programmes
- 178 research projects

Major Diagnostic & Treatment Facilities

DIAGNOSTIC FACILITIES

Pathology

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

Radiodiagnosis

- MRI
- Multidetector CT
- Full field digital mammography
- Prone breast biopsy table with stereotactic facility
- Ultrasound machines
- Xray units
- Computed radiography system
- Picture Archiving and Communication System
- Dexa Scan
- Digital Radiography and Fluoroscopy system
- Supersonic USG machine with Elastography

Nuclear Medicine

- PET/CT Scan
- SPECT Dual Head Gamma Camera
- SPECT CT
- Chemiluminescence assay system

Clinical Laboratory

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

Transfusion Medicine

- NACO approved fully automated blood bank
- Blood irradiator
- Cryofuge
- Platelet apheresis
- Plasma thaw bath
- Automatic component extractor T-ACE, for preparation of leucoreduced products.
- Fully automated testing for transfusion transmissible diseases
- Leucofiltered blood products
- Hemonetics cell separator

Microbiology

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

Cancer Research

- Cytogenetic studies
- FISH, RT-PCR

TREATMENT FACILITIES

Radiation Oncology

- Linear accelerators
- Telecobalt unit
- IGRT, IMRT/Rapid Arc, SRS/SRT, SBRT, 3D conformal RT & portal imaging
- Total Body Irradiation (TBI), Total Skin Electron Therapy (TSET)
- Image guided brachytherapy
- Digital simulator & CT simulator
- Treatment planning systems
- HDR brachytherapy
- Quality assurance equipment

Surgical Services

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

Medical Oncology

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

Paediatric Oncology

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

Palliative Medicine

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

DIAGNOSTIC & TREATMENT FACILITIES ADDED DURING THE PERIOD

Anaesthesiology

- Three anaesthesia workstations and four ICU ventilators

Radiodiagnosis

- Digital Radiography and Fluoroscopy system
- Supersonic USG machine with Elastography

PATIENT WELFARE SCHEMES

RCC has implemented several schemes for providing economic assistance, free food, free drugs and various rehabilitation facilities for patients and their families through programmes supported by Central and State governments and non-governmental agencies. These schemes provided benefit to 14966 new patients to avail treatment worth Rs. 73.21 crores during the period under report. In addition, patients got benefitted from schemes initiated by RCC such as Cancer Care for Life (CCL) scheme, Free Drug Bank, Free Food, and Pratyasha for paediatric patients and also the financial support from Indian Cancer Society.

State and Central Government Schemes (1 April 2018 to 31 March 2019)

Scheme	Patients enrolled during the period (New cases)	Amount spent during the period (Lakhs)	Total no. benefited up to 31 March 2019	Total Amount Spent (Lakhs)
State Government Schemes				
Cancer Suraksha Scheme (Govt. of Kerala)	472	578.40	5389	4585.16
CHIS Plus (Govt. of Kerala)	7635	1955.45	40780	9940.72
Karunya Benevolent Fund (Govt. of Kerala)	6162	4159.27	23117	15369.49
Sukrutham (Govt. of Kerala)	175	207.41	8489	4947.04
Thalolam (Govt. of Kerala)	8	3.78	99	29.49
Scheduled Tribe Patient Fund (Govt. of Kerala)	23	19.28	354	241.78
Snehasanthwanam for Endosulfan Victims (Govt. of Kerala)	10	7.86	53	42.60
Central Government Schemes				
Prime Minister's Relief Fund	432	344.89	1542	1414.58
Health Minister's Rashtriya Arogya Nidhi (RAN)	Nil	Nil	2074	871.05
Health Minister's Discretionary Fund	7	0.11	18	9.11
Health Minister's Cancer Patient Fund (HMCPF-CSR Scheme)	42	44.38	81	72.74
Total	14966	7320.83	81996	37523.76

RCC Initiatives

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

1. Cancer Care for Life (CCL) Scheme

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

2. Free Drug Bank

The Free Drug Bank functions according to specific guidelines and is monitored by a committee constituted by the Director, RCC. The drug bank provided full or partial help to 3108 patients during the reporting period.

3. Free Food ('Akshayapatram')

Free food was provided to 6923 patients belonging to low socio-economic status during the report period. This was possible due to funds donated by many philanthropic organisations and individuals.

Indian Cancer Society Support Scheme

RCC was selected as one of the five cancer centres across India for receiving financial support from the Indian Cancer Society for treatment of cancer. During the report period, 119 new patients received support worth Rs.163.57 lakhs.

HUMAN RESOURCE DEVELOPMENT

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

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

DEPARTMENTS
&
DIVISIONS

DEPARTMENT OF RADIATION ONCOLOGY

Ramadas K

Professor & Head

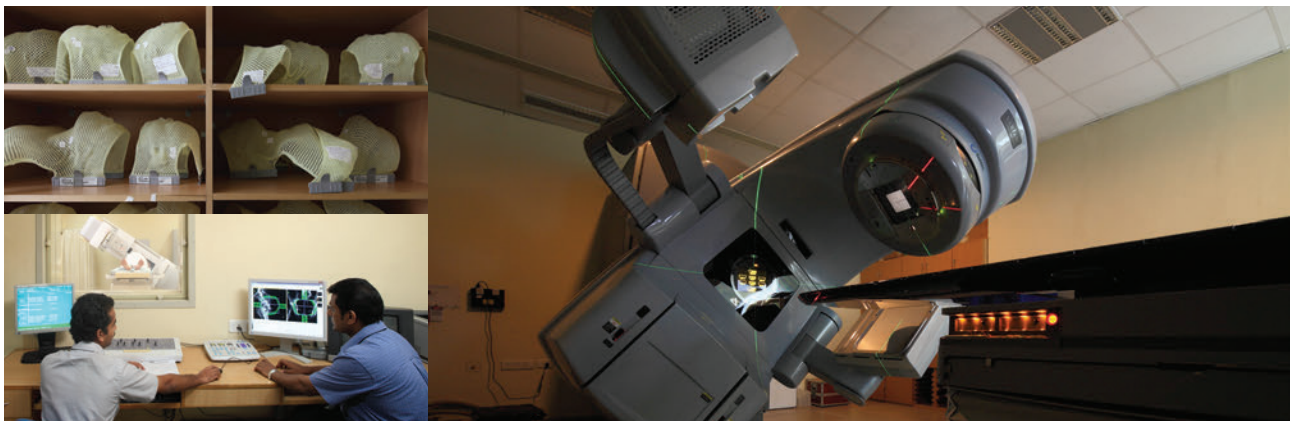
Professors: Francis V. James, Beela Sarah Mathew

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

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

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

Senior Residents: Lekha M. Nair, Shabna Ibrahim



Division of Radiation Oncology has been redesignated as Department of Radiation Oncology as per the Executive Committee decision number 8, dated 17 August 2018.

The department, which has been following a site-wise clinic system, was responsible for the treatment - including radiotherapy and all forms of systemic therapy - of patients

diagnosed with solid tumours. Equipped with five Linear Accelerators and one Tele-cobalt Unit, more patients received CT-based precision radiotherapy including IMRT/IGRT, SRS, SBRT, TSET and Image guided Brachytherapy. PET-CT based planning is also being increasingly utilised.

Clinical services

Include external radiotherapy for 6805 patients and 1771 brachytherapy procedures.

Specialised Radiotherapy Services	
Services	Number
CT based MLC planning	2056
3DCRT	2139
IGRT/IMRT	603
SRS+SRT	20
SBRT	05
TSET	08
Extra-corporeal radiation	09
Total brachytherapy procedures	1771

Academic activities

- MD programme in Radiotherapy with an annual intake of eight seats
- Fellowship in Head and Neck Clinical Oncology with an annual intake of two seats
- Organised AROICON 2018: 40th Annual National Conference of the Association of Radiation Oncologists of India, 29 November - 02 December 2018, which was attended by 800 participants including national and international delegates. (Organising Chairman: Ramadas K; Organising Secretary: Francis V. James)
- Bimonthly clinical oncology multi-specialty scientific symposia
- Training was imparted to Post graduate students from various Medical Colleges in the State

DEPARTMENT OF SURGICAL SERVICES

Shaji Thomas

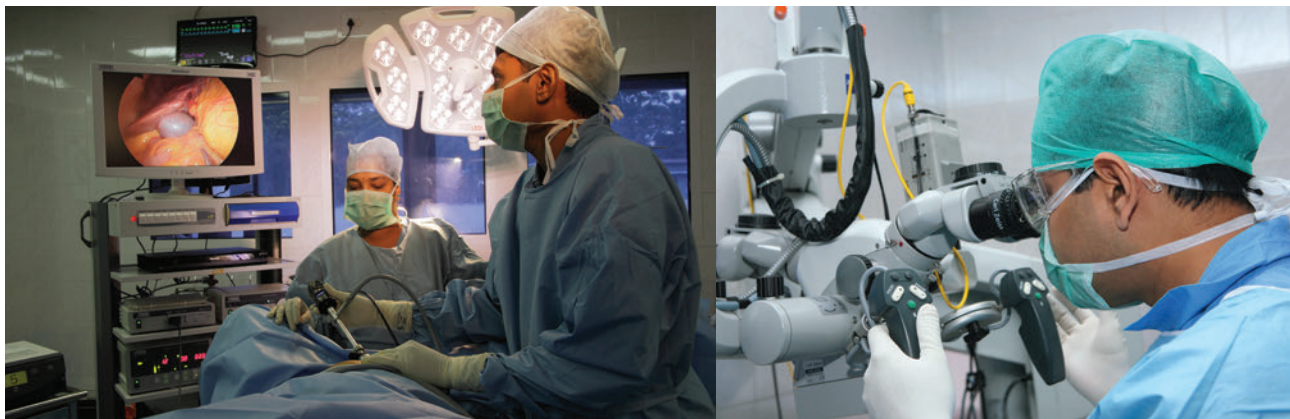
Additional Professor & Head

Professor: Paul Sebastian (till 24.08.2018)

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

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

Senior Residents: Aswathy G. Nath, Shafeek S, Deepa Mary Samuel



The department of Surgical Services provided specialised site wise surgical expertise for primary treatment of majority of solid organ cancers. The department could improve patient outcomes by effective utilization of

manpower and resources and provided surgical care to more number of patients when compared to previous period. Site wise organisation of all consultants improved the surgical quality and patient care.

Surgical & Endoscopic procedures

Major Surgical Procedures	
Sites	Number
Head and Neck	1480
Breast	1306
Gastrointestinal	747
Gynaecological	414
Genito-Urinary + Skin	144
Bone and Sarcoma	265
Miscellaneous	122
Total	4478
Minor Surgical Procedures	
Procedure	Number
Minor cases	1231
LEEP	47
Total	1278
Endoscopy Procedures	
Procedure	Number
Nasopharyngolaryngoscopy Nasal & DL scopy	1112
Bronchoscopy	149
Oesophagoduodenoscopy	847
Oesophageal dilatation + stenting	07
Colonoscopy	780
Colposcopy	73
Hysteroscopy	01
Total	2969

Academic activities

- MCh programme in Surgical Oncology with an annual intake of six seats
- Fellowship in Head and Neck Surgical Oncology with an annual intake of two seats
- Fellowship in Gynae-Surgical Oncology with an annual intake of one seat
- Fellowship in Breast Surgical Oncology with an annual intake of two seats
- Training programme for MS, MD and MDS postgraduate students from various universities across the country.
- Organised NATCON IASO 2018: 32nd Annual National Conference of Indian Association of Surgical Oncologists, at Kovalam, Thiruvananthapuram, 20-23 September 2018. (Organising Secretary: Chandramohan K)
- Organised PG QUEST 2019 on 24 March 2019.

DEPARTMENT OF MEDICAL ONCOLOGY

Geetha N

Professor & Head

Additional Professors: Sreejith Nair, Prakash NP

Associate Professor: Anoop TM

Assistant Professors: Lakshmi Haridas, Rajitha L, Deepa

Susan Joy Philip, Pranab K. Prabhakaran, Rona Joseph, Sugeeth MT

Resident Medical Officer: Lali VS

Division of Medical Oncology has been redesignated as Department of Medical Oncology as per the Executive Committee decision number 8, dated 17 August 2018.

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

2382 new cases and 48452 review cases were seen in the A-Clinic during the report period. In the solid tumor clinics, 1100 new C-clinic cases, 785 new D-clinic cases and 1200 new E-clinic cases were treated by the medical oncology team. In the BMT unit, stem cell transplantation following high dose chemotherapy was performed for 37 patients. About 234 cases of solid tumors were admitted for administration of high profile chemotherapy and management of emergencies and complications under C, D and E clinics. 2804 patients were admitted for the administration of intensive chemotherapy and management of emergencies and complications. New patients with chronic myeloid leukaemia enrolled in the Novartis Patient Assistance (NOVA) programme were given imatinib free of cost.



Academic Activities

- DM Medical Oncology programme with an annual intake of three seats
- Fellowship in Haematooncology with an annual intake of four seats
- Post graduate students in General Medicine, Transfusion Medicine and Radiation Oncology were given training in Medical Oncology.
- CME series: Medical Oncology updates on: Thoracic and GI Oncology (28 April 2018), Genitourinary Oncology (20 July 2018), Breast Oncology (27 October 2018) and Haematologic Malignancies (3 February 2019).
- Organised South Zone Oncology Quiz in Medical Oncology for DM students on 3 February 2019.

DEPARTMENT OF PAEDIATRIC ONCOLOGY

Priyakumari T
Professor & Head

Assistant Professors: Anu Ninan (on leave), Manjusha Nair, Binitha R, Guruprasad CS, Prasanth VR (from 23.01.2019)

Division of Paediatric Oncology has been redesignated as Department of Paediatric Oncology as per the Executive Committee decision number 8, dated 17 August 2018.

The Department provided comprehensive cancer care for childhood malignancies up to the age of 14 years. 537 new cases and 21697 review cases were seen during the report period. A well-equipped paediatric oncology ICU with state-of-the-art facilities provides intensive care to critically ill children. It has two modern ventilators with all advanced facilities, including NAVA (Neurally Adjusted Ventilatory Assist). Procedures like bone marrow studies, lumbar puncture, FNAC, trucut biopsy, intrathecal drug administration and PICC line insertion were done routinely in the department.

Academic activities

- DM programme in Paediatric Oncology with an annual intake of two seats
- Organised IAP Kerala 2018: Annual Conference of the Paediatric Haematology Oncology Chapter on 7 October 2018, which was inaugurated by Dr. M.K.C. Nair, Hon'ble Vice Chancellor, Kerala University of Health Sciences. Panellists included Dr. Revathy Raj, Paediatric BMT Consultant, Apollo Hospitals, Chennai & Dr. Alok Srivasthava, Haematologist, CMC Vellore. (Organising Chairperson: Priya Kumari T, Organising Secretary: Guruprasad CS)



Patient Statistics	
Cases	Number
Acute lymphoblastic leukaemia	176
Acute myeloid leukaemia	29
Chronic myeloid leukaemia	03
Brain tumour	78
Osteosarcoma	14
Ewing's sarcoma/Primitive Neuroectodermal Tumor (PNET)	08
Rhabdomyosarcoma	10
Hodgkin's lymphoma	15
Non-Hodgkin's lymphoma	15
Wilms' tumour	12
Neuroblastoma	27
Hepatoblastoma	07
Germ cell tumour	21
Retinoblastoma	05
Soft tissue sarcoma	02
Langerhans cell histiocytosis	10
Thyroid	09
Miscellaneous	35
Non malignant	61
Total	537

DEPARTMENT OF PATHOLOGY

Jayasree K

Professor & Head

Additional Professors: Rekha A. Nair (selected and joined as Director, RCC from 15.10.2018), Anitha Mathews, Thara Somanathan, Nileena Nayak, Preethi TR

Associate Professors: Anila KR, Renu S

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

Senior Residents: Lakshmi K, Bansal Gunjan Sharad, Balaji K

Division of Pathology has been redesignated as Department of Pathology as per the Executive Committee decision number 8, dated 17 August 2018.

The Department provided diagnostic services such as Surgical Pathology, Cytopathology and Haematopathology along with advanced tests such as immunohistochemistry, FISH, flow

cytometry and frozen section diagnosis. Second opinion was provided for tissue samples referred from all over Kerala and neighbouring States. Faculty and students of the department were actively engaged in community oriented cancer control programmes including screening and early detection of cancers.



Diagnostic Services

Surgical pathology	Cytopathology	Haematopathology	Total
21437	20184	8371	49992

Immunohistochemistry (Surgical pathology + Cytopathology + Haematopathology)	Frozen section	FISH/HER-2	Flow cytometry	Total
38714	1646	109	927	41396

Surgical Pathology

Specimens from RCC	Specimens for Review	Specimens for Second Opinion	Total
13991	6533	913	21437

Cytopathology

FNAC + Fluids	Cervical smear	Sputum	Total
9260	8461	2463	20184

Haematopathology

Bone marrow	Peripheral smear	Slide review	Total
4235	4051	85	8371

Academic activities

- MD programme in Pathology with an annual intake of two seats, Fellowship in Oncopathology, Quality Excellence Programme for Technicians, Cytotechnology, Histotechnology and Cytotechnician courses.
- Regular training to the postgraduates of RCC, MD Pathology students from various Medical Colleges, MDS Pathology students from Dental Colleges, MSc MLT, BSc MLT students and Histotechnology/ Immunohistochemistry trainees.

DEPARTMENT OF RADIOLOGICAL DIAGNOSIS

Ramachandran K (till 30.04.2018)

Professor & Head

Venugopal M (from 23.01.2019)

Professor & Head

Additional Professor & Head (from 01.05.2018 to 22.01.2019)

Additional Professor: Sumod Mathew Koshy (on leave from 01.01.2019)

Associate Professors: Jiji V

Assistant Professors: Anil Prahladan (resigned on 16.10.2018), Anitha Sen, Priya A, Jubiee Raj, Renuka G, Rakesh CA (temporary)

Senior Residents: Umar Basha S, Reshma P

Division of Imageology has been redesignated as Department of Radiodiagnosis as per the Executive Committee decision number 8, dated 17 August 2018.

The Department has a DR X-ray unit, two 500 mA X-ray machines converted to CR, six portable 60 mA units, three colour doppler ultrasound scanners, Mammography X-ray machines with Stereotaxy, 16 slice Multi-Detector CT, 1.5T MRI scanner with MR spectroscopy, full field digital mammography, prone breast biopsy table with stereotactic facility, and a state-of-the-art Doppler Ultrasound machine with facility for elastography contrast studies and Picture Archiving and Communication System. There is facility for MRI under anaesthesia.

New equipment acquired

- Digital Radiography and Fluoroscopy system
- Supersonic USG machine with Elastography

Academic activities

- Fellowship in Oncologic Imaging with an annual intake of four seats
- One year programme in 'Advanced Training in Diagnostic Imaging' with an annual intake of two seats



Diagnostic & Interventional Studies

Investigations	Number
Plain X-rays	29396
Barium studies	238
Ultrasound scans	11250
Ultrasound guided intervention (FNA +Biopsy)	2340
Ultrasound guided prostatic biopsy	210
Doppler studies	470
Digital mammography	5860
Stereotactic biopsy	03
CT scans	13287
CT guided aspiration (FNA)	1002
MRI scans	3732

DIVISION OF NUCLEAR MEDICINE

Pradeep VM
Professor & Head

Additional Professor: Sreekumar A
Senior Resident: Minolin Dhas



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

Diagnostic & Clinical Services	
Investigations/Therapy	Number
PET Scan	1636
SPECT Gamma camera	3673
SPECT CT	2141
Radio immunoassay	75288
Thyroid cancer therapy	596
Thyrotoxicosis therapy	209

Training provided	
Trainees	Number trained
Doctors from Govt. Medical College, Thrissur, Alappuzha and CSI Medical College, Karakkonam	12
BMRT students, MCC, Thalassery	22
DMRT students, Govt. Medical College, Alappuzha	07

DEPARTMENT OF ANAESTHESIOLOGY

Rachel Cherian Koshy
Professor & Head

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

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

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

Intensivist: Karthika Asokan (Temporary)

Division of Anaesthesiology has been redesignated as Department of Anaesthesiology as per the Executive Committee decision number 8, dated 17 August 2018.

Besides providing quality anaesthesia for all major oncosurgical and emergency cases, the department provided anaesthesia for minor therapeutic and diagnostic procedures such as MRI, Radiotherapy, Brachytherapy, and CT guided biopsies.

Equipment acquired

Three anaesthesia workstations and four ICU ventilators

Academic activities

- MD programme in Anaesthesia with an annual intake of six seats
- Fellowship in Oncosurgical Anaesthesia with an annual intake of two seats
- BLS (Basic Life Support) and COLS (Compression Only Life Support) training were given to 21 participants from outside the Centre on the World Restart A Heart Day (23 October 2018), under the Simulation Based Life Support training programme. (Co-ordinator: Subha R)



Anaesthetic Services

Pre-anaesthesia clinic

New cases	5657
Review cases	9418
Total	15057

Anaesthesia Techniques

Total Intravenous Anaesthesia	595
GA+Epidural	1018
GA+Controlled Ventilation	3963
GA+Spontaneous Ventilation	174
Epidural block	50
Combined spinal + epidural	130
Subarachnoid Block	109
Monitored Anaesthesia Care	61
Endotracheal tubes	2894
Supraglottic airway devices	937
Plexus & other blocks	38
GA + Block	229
Anaesthesia for children (MRI, Radiation therapy, CT simulation)	454
Anaesthesia for brachytherapy	14
Anaesthesia for OGD scopy	06
Central venous access (Non-surgical patients)	04

Surgical ICU

Number of patients on ventilator	246
Total ventilator days	489

Acute pain service

Number of patients with epidural catheters	1198
Number of epidural days	3400

DIVISION OF RADIATION PHYSICS

Thayal Singh Elias (from 01.02.2019)

Professor & Head

Raghu Kumar P (from 01.03.2018 to 31.01.2019)

Additional Professor & Head

Additional Professor: Raghu Kumar P, Saju B

Assistant Professors: Zhenia Gopalakrishnan, Debjani Phani,
Shaiju VS, Sharika V. Menon, Sarin B

Activities of the division included calibration and quality assurance of radiotherapy equipment, treatment planning and quality assurance for 3DCRT, IMRT, IGRT, SRS, SRT, SBRT, dose computation, radiation safety in Radiation Oncology, Radiodiagnosis and Nuclear Medicine divisions, participation in intercomparison and external

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



Patient Services

Treatment given	Number
External Beam Radiotherapy	
CT Based Planning	2056
Conventional Planning	1965
3DCRT	2139
IMRT+IGRT	603
SRS+SRT	20
SBRT	05
TSET	08
ECRT	09
Total	6805
Brachytherapy Procedures (Microselectron HDR)	
Gynaecologic (Total treatments)	1737
Oesophagus	03
MUPIT	06
Ca Lip	10
Others	15
Total	1771
Simulation	
CT simulation	5649
Conventional simulation	5266
Total	10915

Academic activities

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

Ongoing Doctoral Research Programmes

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

DIVISION OF CLINICAL LABORATORY SERVICES

Raveendran Pillai K

Additional Professor & Officer in Charge



The Division offers comprehensive clinical laboratory services in high volume chemistry, haematology and coagulation, serology for infectious diseases, therapeutic drug monitoring, blood gas analysis, automated serum and urine electrophoresis (EP) and immunofixation electrophoresis (IFE). Phlebotomy section is handling an average 675 outpatients per day and tests are reported within a turnaround time of 60 minutes or less. Immunosuppressant drug monitoring for bone marrow transplant patients, Methotrexate drug level, 24-hour urine protein estimations and therapeutic drug monitoring for various drugs and serology for HIV and hepatitis were also done.

The laboratory processed 2,06,598 haematology samples, 2,00,734 biochemistry samples, 10,567 urine samples and has reported 2.63 million tests in the period under report. 72 EP and 61 IFE were referred to the division from government and private hospitals.

Quality assurance

The division has been a participant in the External Quality Assurance Services (EQAS) of Bio-Rad Laboratories, USA. Considering the long participation in EQAS and high performance, Bio-Rad Laboratories upgraded the status of the RCC laboratory into Platinum Level. Daily internal quality control is also carried out for Haematology, Clinical Chemistry and Coagulation parameters.

Academic activities

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

Investigations done	
Investigations	Number
Biochemistry	1405138
Haematology	1121822
Coagulation parameters	20515
Urinalysis	52837
Cerebrospinal Fluid (Sugar & Protein)	642
HbA1c	281
Lipid profile	1833
Creatinine clearance test	1927
24 hour urine protein	1554
Methotrexate assay	1953
Cyclosporin assay	110
Serum Immunoglobulin Assay (IgG, IgA & IgM)	9660
Free Kappa	2817
Free Lambda	2827
Serum electrophoresis	2965
Immunofixation electrophoresis	3155
Blood gas (ABG)	2106
Serology	
HIV	15407
HBsAg	15518
HCV	15540

Training provided	
Trainees	Number trained
MD Biochemistry	06
MVSc	02
MSc Medical Biochemistry	03
MSc MLT (Biochemistry)	04
BSc Microbiology	04
BSc Medical Biochemistry	02
BSc MLT	114
BSc Medical Microbiology	04
BTech Biomedical Engineering	03
DMLT	34

DIVISION OF MICROBIOLOGY

Swapna R. Nath

Additional Professor & Head

Assistant Professor: Sagila SG



The division continued to provide services in Bacteriology, Mycology, Parasitology, Mycobacteriology and Serology, in addition to supporting the laboratory needs of infection control programmes in RCC. The division is also a Designated Microscopy Centre for detection of acid fast bacilli under the Revised National Tuberculosis Control Programme (RNTCP).

Academic activities

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

Investigations done	
Culture, Sensitivity & Other tests	Number
Blood	12748
Exudate	2460
Urine	3649
Throat swab	2432
Sputum	1863
Aspirate	450
Stool	850
Surveillance culture	1500
Cerebrospinal fluid	160
Acid Fast Bacilli culture	60
Fungus	70
Widal test	05
Serology (Procalcitonin, Troponin-I, Anti HbIgM, Anti Hbc total)	6500
Microscopy (Gram stain, AFB stain, KOH mount, etc.)	2000

DIVISION OF TRANSFUSION MEDICINE

Vijayalakshmi K

Additional Professor & Head

Assistant Professor: Amitha R (resigned on 16.08.2018)

Resident Medical Officer: Rajesh R. Chandran

The Division is a National AIDS Control Organisation recognised Regional Blood Transfusion Centre. The Division conducted in house and outreach blood collection camps and awareness classes for blood donor motivation. The total blood collection during the period is 17950 units. The Division employs automated procedures for blood group, cross match and infectious disease serology. Our additional services include plateletpheresis, provision of leucoreduced blood components and blood irradiation. The Division is a nodal training centre for staff members from Health Services.

Components issued

Components	Number
Irradiation done	2700
Apheresis done	1807
Packed Red Cells	12622
Platelet concentrate	17694
Fresh Frozen Plasma	1807
Single Donor Plasma	356

Academic activities

- One year programme, 'Advanced Training in Blood Banking and Transfusion Technology' with an annual intake of four seats.
- Provided training to students of MD Pathology, BSc MLT, DMLT and BSc Nursing



DIVISION OF PALLIATIVE MEDICINE

Cherian M. Koshy
Additional Professor & Head

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



The Division of Palliative Medicine continued to provide pain and symptom care to all patients referred to RCC. There has been a significant increase in the number of patients seeking care from the division in the last one year. In addition to the daily Outpatient clinics, the other activities undertaken by the division were:

- Home care for patients registered or discharged from RCC within the District of Thiruvananthapuram through the NGO 'Care Plus'
- Consultations for patients of other clinics admitted in different wards of RCC

Patient services	
Cases	Number
New	4915
Review	18,146
Total	23,061

Training programmes

MCh Surgical Oncology, DM Medical and Paediatric Oncology and MD Radiation Oncology and MD Anaesthesia Post Graduates from RCC and other Medical Colleges were given short term training in basics of pain and palliative care.

DIVISION OF DENTAL CARE

Divya Raj

Assistant Professor



The scope of the Division is to minimize oral and dental complications throughout cancer treatment by eliminating all focus of infections in the oral cavity. Oral care of cancer patients begin immediately following cancer diagnosis or before starting any oncologic management. Various activities in this division include pre and post treatment dental checkup, counselling of patients on oral care during and after treatment of head and neck cancers, dental prophylaxis, post radiation dental care in the form of fluoride application, odontoplasty, management of trismus and management of osteoradionecrosis.

Clinical Services	
Cases	Number
Total patient visits	9500
In patient consultation	10
Pre-treatment dental check up	3600
BMT/Stem cell therapy consultation	30
Dental extraction	30
Dental Prophylaxis	550
Management of Trismus	100
Management of Osteoradionecrosis	10
Sodium fluoride gel application	5186
Odontoplasty	50

DIVISION OF NURSING SERVICES

Sreelekha R
Chief Nursing Officer

Nursing Superintendent: Geetha S

The Division with a team of 320 registered nurses rendered patient care in wards, day care services, out-patient departments, high dependency units, operation theatres and speciality units. Nurse-driven speciality clinics such as the Head and Neck rehabilitation clinic, Lymphoedema clinic, Stoma care clinic and Central Venous Access Device clinic were continued functioning. As part of the improvement of infection control practices, Bundle checklists were prepared and distributed in all wards. Separate surgery wards were established for male and female patients. A Workshop on 'Emergency Care' was organised on 8th February 2019 and training was provided to nurses from outside institutions.

Clinical services

Service	Patient visits
Chemotherapy administration (OP)	76587
Central Venous Access Device Clinic	31469
Lymphoedema clinic	5355
Stoma clinic	6228
Head & Neck Rehabilitation clinic	10935



Training provided for Nurses from outside institutions	
Training	Number
Palliative Care	03
Stoma Care	04
Cancer Chemotherapy	13
CVAD insertion and care	06
BSc Nursing	1946
MSc Nursing	108

DIVISION OF CLINICAL SERVICES & MEDICAL RECORDS

Chandrika D

Medical Records Officer-I

Assistant Administrative Officer

(Clinical Services): Sreekumar B

Medical Records Officer-II: Anilkumar K

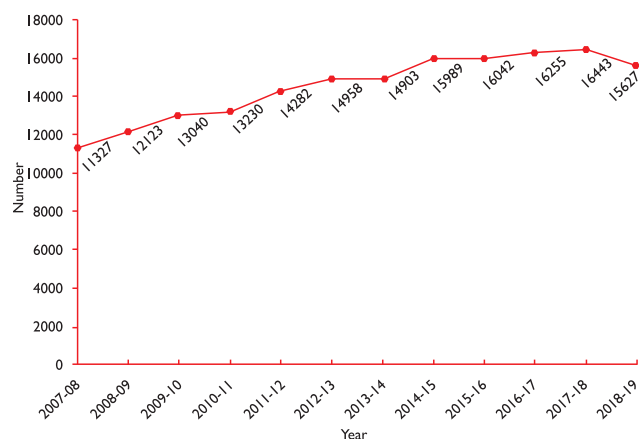
This Division is responsible for maintenance of medical records and management of follow-up appointments, co-ordination of inter-clinic referrals, arranging admissions, and issuance of certificates and railway concessions to patients.

Patient Statistics	
Item	Number
New cases	15,627
Review cases*	2,58,838
Total patient visits	2,74,465
Daily average	915
In-Patient admissions	11,568
In-Patient bed**	297
Total bed occupancy	91,076
Average bed occupancy	250
Bed occupancy rate	84
Average patient stay (in days)	07
Hospital death	731
Peripheral Centres Consultation	2474

* Follow-up of palliative care consultation from various clinics and review during treatment not included

** Day care chemo ward, cubicle chemotherapy ward and radio iodine ward admissions for overnight not included

Figure: New cases registered (2007-08 to 2018-19)



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

Patient categories based on socio-economic status (At the time of registration)		
Category	Number	%
F	2187	13.99
M	3104	19.87
O	2705	17.30
P	51	0.33
R	786	5.03
S	412	2.64
C	3173	20.30
K	3209	20.54
Total	15,627	100

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

New cases and Review cases (Speciality clinic wise)				
Clinic	New Cases		Review Cases	
	No.	%	No.	%
A	2382	15.24	48452	18.72
B	2569	16.43	38857	15.01
C	2558	16.37	57707	22.29
D	2690	17.21	36071	13.94
E	3763	24.08	41690	16.11
F	537	03.44	21697	08.38
G	1128	07.21	14364	05.55
Total	15,627	100	2,58,838	100

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

Referral System

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

Referred cases		
Referred from	Number	%
Teaching hospitals	4090	26.17
PHCs/District/General Hospitals	1769	11.32
Other Government Hospitals	832	05.33
VSSC/ESI/CGHS/ Railway Hospitals	400	02.55
ECDC and Peripheral Centres	70	00.44
Other Cancer Centres	215	01.38
Private Doctors	618	03.97
Private Hospitals	6275	40.15
Self/RCC	1358	08.69
Total	15,627	100

Training provided

Training in medical records and patients services was given to Master of Applied Science & Medical Documentation and MA/MSW students from various universities.

DIVISION OF COMMUNITY ONCOLOGY

Ramani S. Wesley
Professor & Head

Additional Professor: Gigi Thomas
Associate Professor: Jayakrishnan R

The Community Oncology Division gives emphasis on primary and secondary prevention of cancers and also takes key initiatives for cancer control activities through human resource development programmes. The Division conducted trainer-trainee programmes, community oriented cancer awareness/ education programmes and cancer detection camps on a regular basis. Along with this, an Early Cancer Detection Clinic (ECDC) is also run by the division. In the period under report, 12,165 people were examined as part of the cancer screening/ early detection programme. This included community based cancer screening (7336) and those reported at the Early Cancer Detection Clinic (4829). 753 cancers, 538 pre-cancers and 813 HPV lesions were detected through these screening programmes.

Human Resource Development

- **International School of Colposcopy:** 52 doctors were given hands on training, 101 BSc (MLT) students and 21 nurses were given one day orientation on low cost cervical screening strategies like VIA, VILI and Pap smear.
- **Trainer-Trainee Programmes:** Trainer-trainee programmes were conducted for health care providers which included doctors, post graduate medical students and paramedical staff from governmental and non-governmental institutions, Community volunteers, etc.

Trainer-Trainee programmes	
Categories of Trainees	Number trained
Doctors	52
Nurses and paramedicals	122
Community Volunteers (NSS, ASHA workers)	2676
Others (NCC cadets, Jail Wardens)	1342
Total	4192

Early cancer detection clinics (Breast cancer screening, Oral dysplasia, Colposcopy)

During the period under report, 4829 persons attended the Early Cancer Detection Clinic of the Division. 708 cancers, 343 precancers and 401 HPV infections were detected through screening. Oral biopsy was done for 24 patients. In the oral dysplasia clinic, 112 cases of leukoplakia and 53 cases of oral submucous fibrosis were detected. The details of activities of the colposcopy clinic are given in the following table.

Colposcopy clinic	
Procedures done	Number
Colposcopy	992
Colpodirected biopsy	40
Visual inspection using acetic acid and Lugol's iodine	992
Pap smear	800

Cancer Outreach Programmes

115 cancer detection camps were conducted in various parts of the State in which 7336 people underwent screening. 19 oral cancers, 15 breast cancers, 2 cervical cancers and 8 cancers of other sites were detected. 158 oral pre-cancers, 31 cervical pre-cancers and 412 HPV lesions were also detected. Through 65 cancer awareness programmes 3800 trainees were sensitised in cancer control. 22 camps were conducted as part of the bi-weekly cervical cancer detection clinic for the women residing in the control area of the ongoing Breast Cancer Screening project at Mangalapuram in Thiruvananthapuram district. Of the 140 women screened, 1 cervical cancer and 6 cervical pre-cancers were detected.

Tobacco Cessation Clinic (TCC)

74 tobacco users attended the Clinic for tobacco cessation assistance. They were given behavioral counseling and for patients with severe nicotine dependence, nicotine replacement therapy was also given.

Other activities

Cancer Prevention and Control in the Tribal Areas of Thiruvananthapuram District

The Division took the initiative to introduce cancer prevention and control in the tribal areas with the support of Scheduled Tribes Development Department of Government of Kerala. Currently the programme is being conducted in six panchayats of Thiruvananthapuram district. As part of this, programmes on substance abuse threat in Model Residential Schools of

Kerala, cancer prevention programmes among the vulnerable groups in tribal settlement colonies and cancer detection camps were arranged.

House Surgeons' Training Programme

Organised a training programme for House Surgeons of Govt. Medical College and Govt. Dental College, Thiruvananthapuram on cancer prevention and control, in which 104 house surgeons participated.

World No Tobacco Day (31 May 2018)

World No Tobacco Day observed in collaboration with SCTIMST, was inaugurated by Smt. K.K. Shailaja Teacher, Hon'ble Minister for Health and Social Justice, Govt. of Kerala. Dr. Paul Sebastian, Director, RCC delivered the felicitation speech. A panel discussion on tobacco and heart disease and an exhibition on tobacco related cancers were organised.

National Cancer Awareness Day (7 November 2018)

A seminar on Cancer Prevention and Control was organised at RCC for National Service Scheme students of University of Kerala. The programme attended by 160 NSS volunteers, was inaugurated by Dr. Rekha A. Nair, Director, RCC.

World Cancer Day (4 February 2019)

A state level programme organised in collaboration with the Kerala State Health Services Department was inaugurated by Smt. K.K. Shailaja Teacher, Hon'ble Minister for Health and Social Justice, Govt. of Kerala.

DIVISION OF CANCER RESEARCH

Kannan S

Professor & Head

Additional Professors: Sujathan K, Lakshmi S

Associate Professor: Hariharan S

Assistant Professors: Sreelekha TT, Guruvayoorappan C

Six research groups are working in this Division.

The Laboratory of Cell Cycle Regulation and Molecular Oncology is focusing on interpreting the molecular mechanisms behind oral cancer development and identifying molecular signatures capable of predicting disease prognosis. One of the projects is to elucidate the role of NF κ B and STAT3 signalling pathways in oral cancer progression and also to explore the therapeutic significance of co-targeting EGFR/ NF κ B or EGFR/ STAT3 signalling axis using small molecule inhibitors. Studies are ongoing on the role of miRNAs in oral cancer and also on the biology of metastasis using cell lines developed from the primary and metastatic oral tumors of same patients. Another study evaluates the potential of liquid biopsy in diagnosis and prognosis of oral cancer. Studies were also initiated to assess the prognostic significance of various molecular markers in well-differentiated thyroid cancers and to validate the functional significance of the miRNA signature identified in our previous study in cervical cancers.

The Laboratory of Molecular Cytopathology and Proteomics is working on identifying cost effective early cancer detection strategies mainly for cervical cancer and lung cancer. The semi-automated Pap smear screening system developed in collaboration with CDAC, Trivandrum has been modified as a fully automated one. Spectral cytology is being tried to identify early malignant lesions. We could find a differential Raman spectrum for abnormal cells on Pap smear. A point of care device with in-built micro Raman spectroscope is being fabricated. Experimental validation of MCM proteins for supplementing the conventional sputum cytology is ongoing. Studies are ongoing to develop a multiplex method using quantum dots as well as SERS platform and also on the significance of galectin-3 in breast cancers especially in TNBCs.

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



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

The Laboratory of Cytogenetics and Molecular Diagnosis is mainly working on cytogenetics and molecular markers in leukaemia. Our study identified specific chromosomal abnormalities which are specific to certain types of leukemia. Mutation studies of FLT3, NPM1, CEBPA, DNMT3A, WT1, IDH 1, IDH2 genes were performed and correlated with treatment response and survival in AML-NC patients. Mutation analysis of STAG1, STAG2, RAD21, SMC1, and SMC3 genes were carried out in AML patients with t(8;21). Cytogenetic and molecular studies on paediatric leukaemia, imatinib resistance in CML patients, molecular mechanism in advanced stages of CML patients, drug resistance in AML patients, and cytogenetic and molecular studies in inhabitants of high natural background radiation area, Karunagappally, Kerala are also progressing.

The Laboratory of Biopharmaceuticals & Nanomedicine actively concentrating on the therapeutic efficacy of plant polysaccharides and its nanoconstructs cancer cells, tissues and in in vivo small animal models. Biopolymer based metal conjugated nanocarrier system was established for in vivo imaging, targeted drug delivery and photothermal therapy. Receptor mediated drug targeting using folic acid/antibody conjugated nanoconjugates and polysaccharide based drug-gene nanoconstructs facilitated co-delivery of drug and gene for effective cancer therapy are also being studied. Another area of investigation is polysaccharide based scaffolds, recognized for 3D culture, mesenchymal stem cell differentiation, tissue engineering and wound healing applications.

The Laboratory of Immunopharmacology and Experimental Therapeutics is devoted in the development of novel, targeted therapeutic agents for cancer drug delivery. The research work in this laboratory is focused on three research domains. The

first domain works on inflammatory bowel disease and its relation with cancer progression. The second domain works on mitigation of radiation esophagitis using natural products with an objective to improve the quality of life of cancer patients receiving thoracic radiation. The third domain works on development of aptamer tagged functionalized liposomes for targeted drug delivery of therapeutic drugs.

New Equipment Acquired

Equipment	Number
High speed refrigerated centrifuge	01
Lyophilizer	01
Inverted microscope with camera	01
Double door refrigerator	01
Cytospin 4 cytocentrifuge	01
Automatic Metaphase Finder	01
Fourier Transform Infrared Spectrophotometer	01

Diagnostic services provided	
Services	Number
Karyotype analysis	
Bone marrow samples	1277
Peripheral blood samples	20
Qualitative RT-PCR for bcr-abl & pml-rara	606
Fluorescent In Situ Hybridization	1024
Total	2927

Academic activities

- Organised a Hands-on-Workshop, 'Foldscope: The Origami-Based Microscope and its Effective Use in Cancer', 26-27 October 2018.
- Organised CYTOGENETICS FISH Workshop, 28-30 November 2018.
- Organised a Hands-on-Workshop, 'Foldscope: The Origami Based Microscope and its assembly' on 23 February 2019 (in connection with National Science Day-2019).

Ongoing Doctoral Research Programmes			
Sl. No.	Research scholar	Title of the study/University	Guide
1.	Dileep Kumar U	Studies on the biology of carcinoma of buccal mucosa and tongue/University of Kerala.	Dr. Kannan S
2.	Joseph Vimal	Biology of metabolic reprogramming in metastatic oral cancer/ University of Kerala	Dr. Kannan S
3.	Sinto MS	Biology of NFκB and STAT3 transcriptional factors in oral carcinogenesis/University of Kerala.	Dr. Kannan S
4.	Manasa VG	Biological significance of miRNAs altered in oral carcinoma/ University of Kerala	Dr. Kannan S
5.	Iris Himal	Functional validation of miRNA signature identified for uterine cervical cancer/University of Kerala	Dr. Kannan S
6.	Noble T. Baby	Formulation of circulating cell free DNA-RNA signature (CFNAS) and validating the potential of liquid biopsy in diagnosis and prognosis of oral tongue cancer/University of Kerala	Dr. Kannan S
7.	Rajesh SV	Study of cell cycle regulatory proteins in thyroid nodules/M.S. University	Dr. Sujathan K
8.	Akhil BS	Phytochemical and biological studies of selected plants of Verbenaceae/Manipal University	Dr. Sujathan K
9.	Jeethi Ram	Galectin driven stem cell regulation in triple negative breast cancers/Manipal University	Dr. Sujathan K
10.	Neeraja P	Study of mini-chromosome maintenance proteins in lung cancer cells: Its significance in the diagnosis and prognosis of non-small cell lung cancers/Manipal University	Dr. Sujathan K
11.	Shanaz S. Sharaf	Identification of a panel of prognostic markers and development of a multiplex platform for the histoclinical classification of breast cancer/ Manipal University	Dr. Sujathan K
12.	Sulfath TP	Exploring eccentric roles of hippo pathway in the progression and survival of triple negative breast cancer (TNBC) to ascertain molecular therapeutic target/University of Kerala	Dr. Lakshmi S
13.	Ajeesh BL	Characterization of glucose metabolism in breast cancer and its therapeutic implications/University of Kerala	Dr. Lakshmi S
14.	Preethi G. Nath	Identification of novel prognostic markers in pediatric leukaemia/ University of Kerala	Dr. Hariharan S

15.	Akhila Raj TV	Molecular studies on genes responsible for drug resistance: A study on <i>de novo</i> and relapsed acute myeloid leukaemia patients/ University of Kerala	Dr. Hariharan S
16.	Geetha Raj	Cytogenetic abnormalities and risk stratification of multiple myeloma patients by FISH technique/University of Kerala	Dr. Hariharan S
17.	Mahitha MS	Clinical significance of advanced stages of CML patients/University of Kerala	Dr. Hariharan S
18.	Amritha P. Kumar	A study of cytogenetic and molecular abnormalities in children with ALL and its clinical significance/University of Kerala	Dr. Hariharan S
19.	Unnikrishnan BS	Application of polysaccharide metal nanoconjugates in cancer detection and therapy/ University of Kerala	Dr. Sreelekha TT
20.	Preethi GU	Chemotherapeutics loaded polysaccharide scaffold as novel tool to fight against cancer/ University of Kerala	Dr. Sreelekha TT
21.	Shiji R	Galactomannan polysaccharide nanoconjugates for imaging and targeted cancer therapy/University of Kerala	Dr. Sreelekha TT
22.	Archana MG	Polysaccharide based nanoconstructs facilitated co-delivery of drug and gene for effective cancer therapy/University of Kerala	Dr. Sreelekha TT
23.	Abeesh P	Liposome encapsulation of phytochemicals from Ashwagandha (<i>Withania somnifera</i> L.) for improved bioavailability and its potential application in lung cancer treatment by targeting EGFR, STAT3 and NF- κ B signaling pathways/University of Kerala	Dr. Guruvayoorappan C
24.	Vishnu Walsan	Investigation of radioprotective effect of mangroves and its potential application in mitigating radiation-induced esophagitis/ University of Kerala	Dr. Guruvayoorappan C
25.	Drishya Sudarsanan	Antitumour and radioprotective effect of medicinal plants and its possible therapeutic application to mitigate detrimental effect of radiotherapy/University of Kerala	Dr. Guruvayoorappan C
26.	Dhanisha SS	Investigation of the immunomodulatory efficacy of medicinal plants and its potential application in preventing cancer metastasis/University of Kerala	Dr. Guruvayoorappan C

Training provided	
Trainees	Number trained
MD/MS/DM students (Dissertation work)	54
MSc (Biotech)/Life Science students (3/6 months project work)	54
MSc MLT students	15
BSc MLT students	195

DIVISION OF CANCER EPIDEMIOLOGY & BIOSTATISTICS

Aleyamma Mathew
Professor & Head

Associate Professors: Jayalekshmi P, Latha PT (till 31.11.2018),
Preethi Sara George

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

The Division runs the hospital and population based cancer registries (HBCR & PBCR), conducted cancer surveillance programmes (Hospital-based pattern of care and cancer survival studies and Population-based cancer survival studies), cancer epidemiologic studies (six numbers), biostatistics studies (six numbers), and cancer detection programmes and cancer awareness classes in various parts of the State. The Division teaches biostatistics to RCC students, provides training in cancer registry operations, conducts doctoral research programmes in epidemiology & biostatistics and also offered more than 152 statistical consultancy services.

The Division prepared Hospital Based Cancer Registry annual report for the year 2016 and Population Based Cancer Registry annual report for the year 2017.

Figure 1: New Patient Registration, 2018-2019: Geographical Distribution

Hospital Based Cancer Registry (HBCR), Regional Cancer Centre, Thiruvananthapuram (2018-2019): System-wise distribution (%) of invasive cancers by gender		
Male N = 7092 %	System (Total invasive cases=13523)	Female N = 6884 %
03.2	Brain & Nervous System	01.5
21.7	Oral Cavity & Pharynx	06.8
02.9	Thyroid	12.9
16.9	Respiratory System	04.3
00.3	Breast	28.5
08.1	Oesophagus & Stomach	03.4
14.1	Other Digestive Organs	07.7
03.8	Urinary Tract	00.8
06.2	Reproductive System	18.9
03.4	Bone, Conn. tissue & Skin	02.5
09.4	Leukaemia & Myeloma	07.1
06.2	Lymphoma	03.4
03.7	All Others	02.3

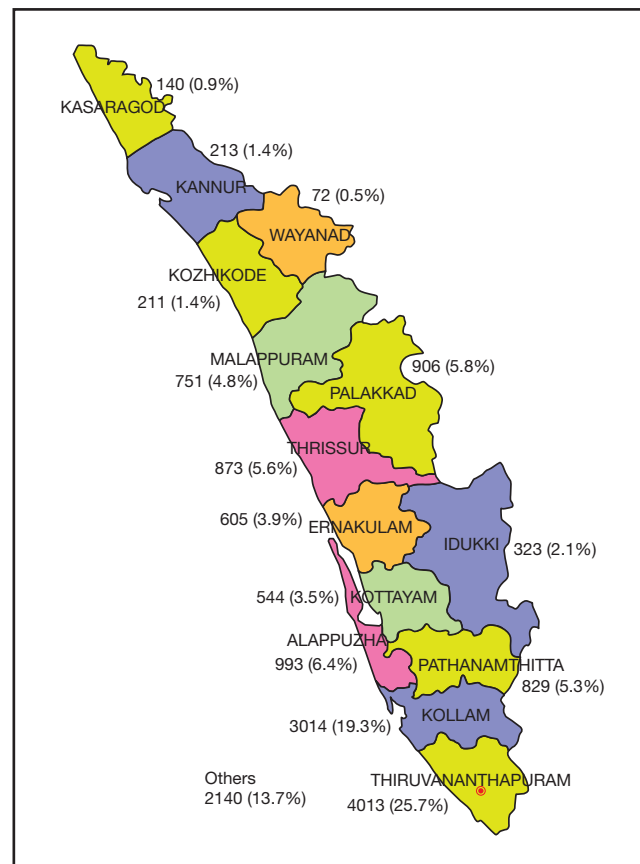
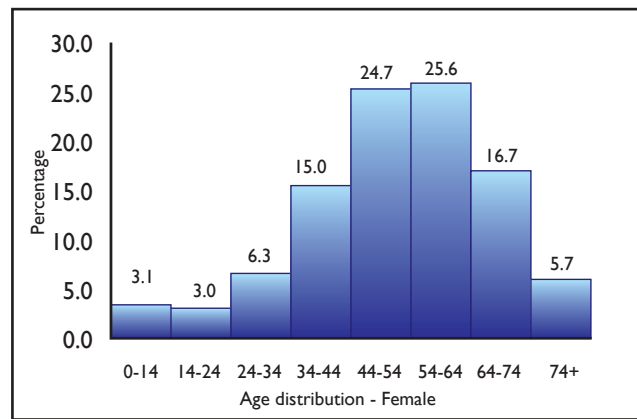
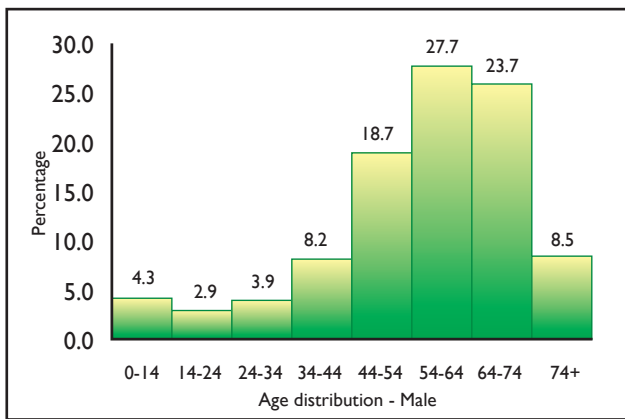
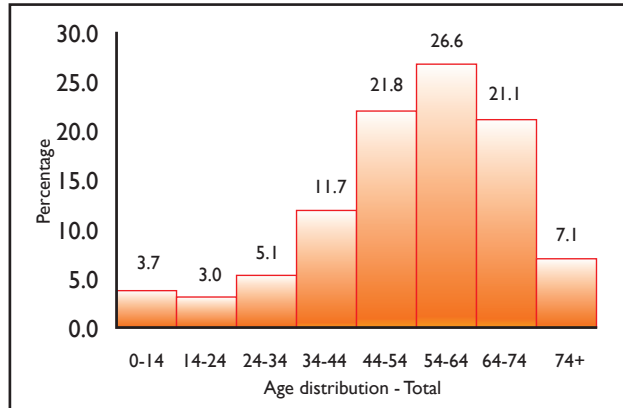


Figure 2: New Patient Registration, 2018-2019: Age-wise Distribution



Hospital Based Cancer Registry (HBCR), Regional Cancer Centre, Thiruvananthapuram (2018-2019): Site-wise distribution of patient registration by gender

ICD-10	Site	Male		Female		Total	
		No.	%	No.	%	No.	%
C00	Lip	15	0.2	11	0.2	26	0.2
C01	Base of tongue	11	0.2	2	0.0	13	0.1
C02	Tongue	481	7.2	173	2.5	654	4.8
C03	Gum	125	1.9	75	1.1	200	1.5
C04	Floor of mouth	83	1.3	5	0.1	88	0.7
C05	Palate	59	0.9	20	0.3	79	0.6
C06	Other mouth	327	4.9	108	1.6	435	3.2
C07	Parotid gland	45	0.7	24	0.3	69	0.5
C08	Salivary gland	8	0.1	5	0.1	13	0.1
C09	Tonsil	26	0.4	5	0.1	31	0.2
C10	Oropharynx	119	1.8	6	0.1	125	0.9
C11	Nasopharynx	31	0.5	13	0.2	44	0.3

C12	Pyriiform sinus	64	1.0	1	0.0	65	0.5
C13	Hypopharynx	45	0.7	19	0.3	64	0.5
C14	Pharynx unspecified	3	0.0	2	0.0	5	0.0
C15	Oesophagus	239	3.6	93	1.4	332	2.5
C16	Stomach	297	4.5	140	2.0	437	3.2
C17	Small intestine	19	0.3	9	0.1	28	0.2
C18	Colon	184	2.8	120	1.7	304	2.2
C19	Rectosigmoid colon	45	0.7	27	0.4	72	0.5
C20	Rectum	260	3.9	184	2.7	444	3.3
C21	Anus & anal canal	12	0.2	13	0.2	25	0.2
C22	Liver	248	3.7	59	0.9	307	2.3
C23	Gall bladder	14	0.2	25	0.4	39	0.3
C24	Other biliary tract	46	0.7	27	0.4	73	0.5
C25	Pancreas	107	1.6	65	0.9	172	1.3
C26	Other digestive organs	2	0.0	1	0.0	3	0.0
C30	Nasal cavity	20	0.3	12	0.2	32	0.2
C31	Accessory sinus	19	0.3	6	0.1	25	0.2
C32	Larynx	252	3.8	12	0.2	264	2.0
C33	Trachea	0	0.0	1	0.0	1	0.0
C34	Lung	807	12.2	252	3.7	1059	7.8
C37	Thymus	1	0.0	3	0.0	4	0.0
C38	Heart & mediastinum	25	0.4	8	0.1	33	0.2
C40	Bone of limbs	38	0.6	24	0.3	62	0.5
C41	Other bone	39	0.6	23	0.3	62	0.5
C44	Skin other	75	1.1	66	1.0	141	1.0
C47	Peripheral nerves	0	0.0	1	0.0	1	0.0
C48	Retroperitoneum	11	0.2	12	0.2	23	0.2
C49	Connective tissue	74	1.1	57	0.8	131	1.0
C50	Breast	21	0.3	1961	28.5	1982	14.7
C51	Vulva	0	0.0	16	0.2	16	0.1
C52	Vagina	0	0.0	34	0.5	34	0.3
C53	Cervix uteri	0	0.0	502	7.3	502	3.7
C54	Corpus uteri	0	0.0	326	4.7	326	2.4
C55	Uterus, nos	0	0.0	38	0.6	38	0.3
C56	Ovary	0	0.0	373	5.4	373	2.8
C57	Oth. female genital org.	0	0.0	9	0.1	9	0.1
C60	Penis	33	0.5	0	0.0	33	0.2
C61	Prostate	339	5.1	0	0.0	339	2.5

C62	Testis	38	0.6	0	0.0	38	0.3
C64	Kidney	105	1.6	34	0.5	139	1.0
C65	Renal pelvis	2	0.0	1	0.0	3	0.0
C66	Ureter	2	0.0	0	0.0	2	0.0
C67	Urinary bladder	146	2.2	18	0.3	164	1.2
C68	Other urinary organs	0	0.0	2	0.0	2	0.0
C69	Eye	9	0.1	11	0.2	20	0.1
C70	Meninges	1	0.0	0	0.0	1	0.0
C71	Brain	210	3.2	105	1.5	315	2.3
C72	Spinal cord	4	0.1	0	0.0	4	0.0
C73	Thyroid gland	194	2.9	886	12.9	1080	8.0
C74	Adrenal gland	21	0.3	11	0.2	32	0.2
C75	Other endocrine gland	3	0.0	2	0.0	5	0.0
C76	Ill-defined sites	8	0.1	10	0.1	18	0.1
C77	Secondary lymph node	104	1.6	42	0.6	146	1.1
C78	Sec. resp.& digestive	27	0.4	29	0.4	56	0.4
C79	Secondary Other sites	27	0.4	20	0.3	47	0.3
C80	Primary unknown	26	0.4	19	0.3	45	0.3
C81	Hodgkin's disease	97	1.5	47	0.7	144	1.1
C82	Follicular NHL	48	0.7	37	0.5	85	0.6
C83	Diffuse NHL	173	2.6	98	1.4	271	2.0
C84	T-cell lymphoma	29	0.4	18	0.3	47	0.3
C85	Other NHL	54	0.8	32	0.5	86	0.6
C88	Malig. Immunoprolif.	2	0.0	1	0.0	3	0.0
C90	Multiple myeloma	145	2.2	113	1.6	258	1.9
C91	Leukaemia, lymphoid	179	2.7	131	1.9	310	2.3
C92	Leukaemia, myeloid	213	3.2	163	2.4	376	2.8
C93	Leukaemia, monocytic	34	0.5	44	0.6	78	0.6
C94	Other specif. leukaemia	4	0.1	1	0.0	5	0.0
C95	Leukaemia, unspecified	52	0.8	35	0.5	87	0.6
C96	Oth. lymphoid neoplasms	13	0.2	6	0.1	19	0.1
	Total (Invasive)	6639	100	6884	100	13523	100
	Benign tumours	106	11.5	203	17.2	309	14.7
	Borderline malignancy	71	7.7	130	11.0	201	9.6
	In-situ	22	2.4	102	8.6	124	5.9
	Non-neoplastic (pre-malig. Cond. & others)	403	43.8	421	35.6	824	39.2
	Diagnosis not confirmed	319	34.6	327	27.6	646	30.7
	Total (non-invasive)	921	100	1183	100	2104	100
	Total no. of Patients	7560	100	8067	100	15627	100

Population Based Cancer Registry (PBCR), Thiruvananthapuram District (2017): Number (#), Crude Incidence Rate (CR), and Annual Age-adjusted Incidence Rate (AAR) per 100,000 persons of leading cancer sites

ICD-10	Site	Male			Female		
		#	CR	AAR	#	CR	AAR
C00-C06	Oral cavity	298	18.7	14.1	165	9.4	6.7
C01 -C02	Tongue	146	9.2	7.1	83	4.7	3.4
C03 -C06	Mouth	146	9.2	6.8	74	4.2	3.0
C09- C14	Pharynx	115	7.2	5.3	23	1.3	1.0
C15	Oesophagus	79	5.0	3.7	29	1.7	1.2
C16	Stomach	104	6.5	4.9	49	2.8	2.1
C18	Colon	97	6.1	4.5	93	5.3	3.8
C19 -C21	Rectum	146	9.2	7.0	129	7.3	5.2
C22	Liver	153	9.6	7.1	49	2.8	2.0
C25	Pancreas	66	4.2	3.0	40	2.3	1.6
C32	Larynx	138	8.7	6.6	8	0.5	0.3
C33 -C34	Lung	424	26.7	19.7	117	6.7	4.7
C40 -C41,49	Bone & Conn.Tissue	37	2.3	1.9	44	2.5	2.0
C43 -C44	Skin	46	2.9	2.2	49	2.8	1.9
C50	Breast	27	1.7	1.3	1011	57.6	41.7
C53	Cervix Uteri	-	-	-	146	8.3	6.0
C54	Corpus Uteri	-	-	-	178	10.1	7.4
C56	Ovary	-	-	-	175	10.0	7.5
C61	Prostate	204	12.8	9.3	-	-	-
C64 - 66,68	Kidney etc.	59	3.7	2.9	18	1.0	0.9
C67	Urinary bladder	99	6.2	4.6	19	1.1	0.8
C70 -C72	Brain & other CNS	62	3.9	3.5	43	2.4	2.0
C73	Thyroid	75	4.7	3.9	395	22.5	18.3
C81 - C85, C96	Lymphoma	138	8.7	6.9	95	5.4	4.2
C90	Multiple Myeloma	84	5.3	4.0	70	4.0	3.0
C91- 95	Leukemia	77	4.8	4.6	74	4.2	4.5
C00 -96	All sites	2991	188.1	143.4	3454	196.7	146.9

Cancer screening programmes

- Conducted 69 cancer detection camps in which 1933 women underwent Pap smear screening. 2134 women reported for Pap-smear screening in Women & Children Hospital, Thycaudu and General Hospital, Peroorkada.
- Orientation in early cancer detection was given to six Medical Officers.
- Conducted training programme for doctors and para-medical staff in organising population based screening programmes (after identifying high risk group) and in the prevention and early detection of common cancers in four Primary Health Centres (PHCs) in Manamboor, Kesavapuram, Veeranakavu and Thonnakkal.
- Conducted orientation programme for ASHA workers of four Primary Health Centres (Manamboor, Kesavapuram, Veeranakavu and Thonnakkal) in identifying high risk women for common cancers and participating them in cancer screening clinics.

Cancers & pre-cancers detected in screening programmes

Cases	Cancer Detection Camps	Hospital-based Screening Programmes
Oral cancer	03	-
Breast cancer	08	-
Cervix cancer	03	04
Cervical pre-cancer	03	08

Academic activities

Ongoing doctoral research programmes

No.	Research scholar	Title of study/University	Guide
1	Subha R. Nair (Thesis submitted)	Risk prediction models for the development of breast cancer/University of Kerala	Dr. Aleyamma Mathew
2	Kavitha Chandran C	Effect of multilateral health care strategies on metabolic profile among prediabetics/University of Kerala	Dr. Aleyamma Mathew
3	Sreelekha KR	Bayesian modeling and posterior inference for breast cancer survival data in Kerala/Mahatma Gandhi University	Dr. Preethi Sara George

DIVISION OF LIBRARY AND INFORMATION SERVICES

Vishnu V

Librarian cum Information Officer Gr. I

The Division continued to serve as the hub of all information activities by providing the right information to the right user at the right time. The Division carried out a wide range of services to support the clinical, academic and administrative requirements of the Centre. Institution wide and remote based full text access to the subscribed content from ScienceDirect, Wiley Online Library, Oxford University Press, Ovid, Springer Nature, Informa Health, American Society of Clinical Oncology, American Association for Cancer Research, etc. were made available. Arrangements were made for the off campus access to **UpToDate Anywhere** database. This is in addition to the journals, E-books and other multimedia resources available through the arrangement with the National Cancer Grid library services. Library continued the DELNET membership to meet user demand for articles from non-subscribed journals.

Library home page was updated regularly for the provision of information services. Links were provided to each journal, which enabled direct access to full text of articles. Weekly alert service on articles in subscribed journals was continued. Details of books, RCC publications, reprints, journal holdings, e-books, and previous year university examination question papers of Post graduate/Superspeciality programmes in the Centre were made accessible through various links provided in the library page.



Information sources

Document type	Collection as on 31 March 2019
Books, Monographs and Back Volumes	13,361
Current Journals	135
E-Journals	132
E-Books	160
Reprints	7855

DIVISION OF INFORMATION SYSTEMS

Sajeed A

Officer in Charge

Maintenance of Hospital Information System, web, mail and proxy servers, administration of Oracle database, management of LAN and WAN, management of data relating to Cancer Care for Life scheme, maintenance of PCs and trouble shooting, administration and maintenance of telemedicine software and equipment, scanning of case sheets, etc. State-of-the-art mini data centre and disaster recovery site are attached to the division.

Major achievements during the period under report were the following:

- Implemented Hyper-Converged Infrastructure (HCI), a software-defined IT infrastructure that virtualizes all the elements of conventional "hardware-defined" systems. This cost-effective infrastructure uses software and x86 servers to combine, compute and networking into a single system and hence reduces complexity and increases scalability and reliability.
- Upgraded Oracle Database Appliance (ODA), an engineered system which is specifically designed for Oracle database software and to run databases and applications on a single, managed appliance with single-vendor support.
- Upgraded organisation structured network to the next level with 40G network fibre optic backbone. This upgrade includes the setting up of active networking components like core switches, distribution switches, edge switches, wireless access points and wireless controllers which ensures a faster and reliable data transfer speed within the campus network.

EARLY CANCER DETECTION CENTRE (ECDC)

ECDC, Ernakulam

Latha A

Cytopathologist

Early Cancer Detection Centre, Kaloor, Ernakulam primarily aims at screening and early diagnosis of cancers through cervical smear examination, oral scrape smear examination, fine needle aspiration cytology, colposcopy and fluid cytology. In addition to the daily clinics of about 50 patients per day, ECDC conducted cancer detection camps and cancer awareness classes in Ernakulam and neighbouring districts. The lymphoedema clinic conducted every third Saturday afternoon benefitted patients treated at RCC and also from other centres.

Screening services	
Services	Number
Awareness classes	40
Cancer detection camps	64
Persons screened	25162
Cancers detected*	405
Pre-cancers detected	258

*Oral-36, Breast-197, Cervix-17, Lymphoma-10, Thyroid-53, Metastatic lymphnode-77, Others-15

Clinical activities			
Tasks	ECDC	Camp	Total
Cervical smear	2071	2790	4861
Oral smear	134	30	164
Fine Needle Aspiration Cytology	2811	1389	4200
Sputum cytology	6	-	6

ECDC, Palakkad

Rekha SR

Resident Medical Officer

The major activities of this Centre are primary and secondary prevention of cancers through cancer awareness/education programmes organised at the Centre and at the District Hospital, Palakkad. Short course chemotherapy and other minor procedures like CVAD dressing, pump removal, ascitic tapping, and pleural tapping referred from RCC were also done. Screening for cervical cancer and its precursors were done on all Fridays at District Hospital, Palakkad. Follow up clinics were conducted every three months and 400 patients attended. Palliative care for terminally ill patients was provided on random basis and few house visits were done. The Centre also joined hands with the district medical administration, Palakkad and conducted 'Cancer Care' to propagate cancer screening and awareness among school/college students. Awareness programmes for the control of tobacco induced cancers were done with the help of NGOs.

Screening services	
Services	Number
Awareness classes	95
Cancer detection camps	78
Persons screened	13250
Cancers detected*	66
Pre-cancers detected	275

*Oral-12, Breast-28, Cervix-8, Thyroid-5, Others-13

Clinical activities			
Tasks	ECDC	Camp	Total
Cervical smear	706	2734	3440
Oral smear	25	18	43
Fine Needle Aspiration Cytology	110	115	225
Sputum cytology	2	-	2
Nipple discharge	9	5	14
Fluid cytology	6	-	6

NATURAL BACKGROUND RADIATION CANCER REGISTRY (NBRR), KARUNAGAPPALLY

Jayalekshmi P

Associate Professor & Officer-in-charge

The Natural Background Radiation Cancer Registry (NBRR), was started to evaluate the health effects of natural radiation present in the sea coast of Karunagappally Taluk, Kollam district of Kerala. The study initiated in 1990 established a radiation cohort to assess the excess relative risk of cancer due to radiation. NBRR carries out radiation epidemiologic studies on cancer and non-cancerous diseases, dosimetric studies, cytogenetic studies and prevalence of other health effects such as thyroid nodularities, cataract and atherosclerosis. Kollam District Cancer Registry supported by ICMR, Govt. of India and Cancer Care Centre supported by Govt. of Kerala are attached with this registry.

Patient services

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

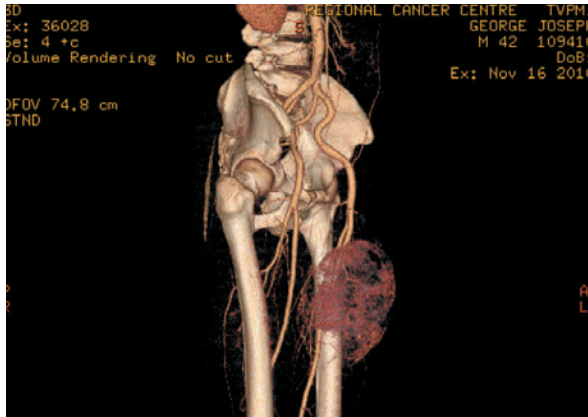
Patient services		
Services	Number	Persons attended
Review clinics	06	1607
Cancer supportive clinics with day care (all working days) & home care (weekly 2 days)	-	5298
Cancer awareness classes	18	1347
Cancer detection camps	82	5932
Pap smear screening	---	3681
Other cytology investigations	219	---
Cancers detected*	58	---

*Oral-15, Breast-19, Cervix-12, Thyroid-3, Others-9

MULTIDISCIPLINARY CLINICS

'A' CLINIC

(HAEMATOLOGICAL, LYMPHORETICULAR, BONE & SOFT TISSUE SARCOMA)



'A' Clinic is responsible for the diagnosis and management of haematological and lymphoreticular malignancies, sarcomas and other solid tumors where intensive chemotherapy is indicated. 2804 patients were admitted for the administration of high profile chemotherapy and management of emergencies and complications. In the BMT unit, autologous bone marrow transplantation following high dose chemotherapy was performed in 35 patients. Allogenic bone marrow transplantation for leukaemias was performed in 2 patients. In the BMT unit, 74 stem cell apheresis procedures were done during the reporting period. Clinical training was given to postgraduate students of Radiation Oncology, Surgical Oncology and Medical Oncology of RCC and other Medical Colleges.

Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	2382
Review cases	48452
Total	50834

Specialised services				
High dose chemotherapy	Apheresis procedure	Autologous BMT	Allogenic BMT	Chemotherapy
2000	74	35	02	20000

Major surgical procedures: 265
(Sarcoma - 111, Ortho - 88, Others – 66)

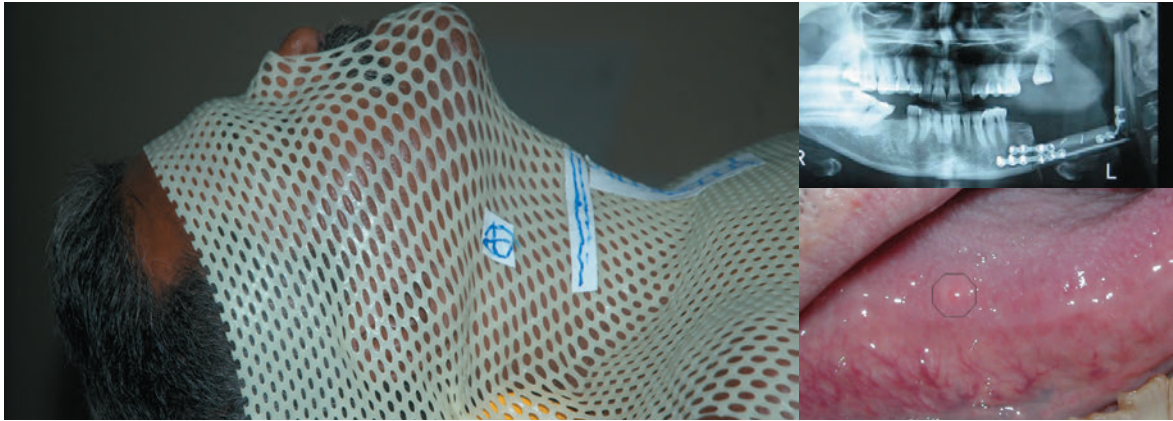
Radiation treatments: 649

Academic activities

Organised a CME on 'Update on the management of Hematologic Malignancies' on 3rd February 2019

Observers/Trainees: 42

'B' CLINIC (HEAD & NECK)



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

The Clinic has started one year Fellowship programme in Head and Neck Clinical Oncology, with an annual intake of two seats, covering all aspects of management and prevention strategies for head and neck cancers.

Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	2569
Review cases	38857
Total	41239

Radiotherapy Procedures	
Radical	
IMRT	2D Planning
94	600

Surgical Procedures			
Oral cancer	Laryngo-pharyngeal	Salivary glands	Sino-nasal
1043	64	48	27

Chemotherapy

Concurrent Chemo-Radiotherapy	250
Neoadjuvant	320

Academic activities

Organised THYROCAN 2018 on 9 December 2018.

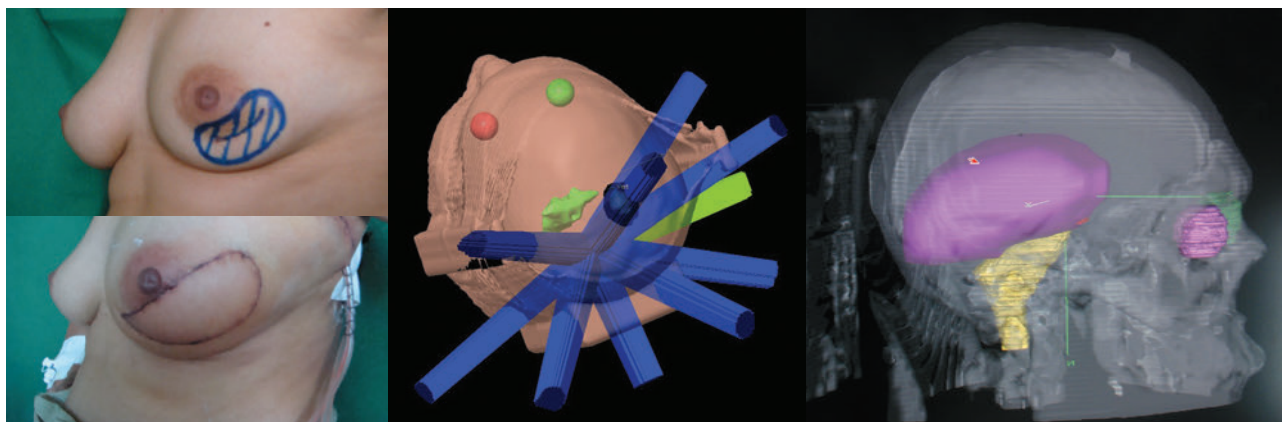
Observers: 102

Visitors: 5

Trainees: 15 MDS trainees from various Dental Colleges

'C' CLINIC

(BREAST & CENTRAL NERVOUS SYSTEM)



'C' Clinic deals with the treatment of cancers arising in the breast and central nervous system. The clinic also caters to paediatric patients who need radiotherapy for central nervous system tumours. Regular multi-disciplinary tumour board discusses various treatment programmes for each patient. The services provided include conservative and reconstructive surgeries for breast cancer, sentinel lymph node biopsy procedures, modern radiotherapy treatments such as 3D conformal radiotherapy, IMRT/IGRT, SRS/SRT and all forms of systemic treatments such as chemotherapy, endocrine therapy and targeted therapy. There is also an increase in the oncoplasty and reconstruction procedures following mastectomy. Clinic includes well-trained nurses for counselling regarding treatment side effects. Services including post treatment physiotherapy, rehabilitation and management of lymphoedema are provided by lymphoedema clinic. Training in breast and neuro-oncology is provided for Oncology specialty MD and Super-specialty students of RCC and other medical colleges. Breast cancer awareness month in October 2018 was observed and 690 women benefited the screening programme.

The Clinic has started Two years Fellowship programme in Breast Surgical Oncology, with an annual intake of two seats.

Clinical Services/Procedures Offered

Patients consulted				
Patients				Number
New cases				2558
Review cases				57707
Total				60265
Radiotherapy procedures				
Radical				Palliative
Conformal	Conventional	IMRT	Stereotactic Radiosurgery/ SRT	
1450	190	110	27	
85				
Surgical Procedures				
Mastectomy+/- Reconstruction		Breast Conservation & Oncoplasty		
797		381		

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

'D' CLINIC

(GYNAEC, GENITOURINARY & OTHERS)



'D' Clinic provides care for patients with gynaecologic, urologic, dermatologic cancer and cancers of unknown primary origin. This clinic consists of radiation oncologists, gynecologic cancer surgeons, medical oncologist, post graduates in radiation oncology, medical oncology, surgical oncology and gynecology and nursing staff. Patients were treated with precision radiotherapy (IGRT, IMRT and 3D conformal RT), surgery, chemotherapy, targeted and hormonal therapies. Surgical oncology services range from extensive pelvic surgery to minimally invasive laparoscopic procedures. More urological surgeries were also done in the report period. 600 patients underwent gynaecological brachytherapy procedures during the period of report. Clinical training was given to postgraduate students from Radiation Oncology, Surgical Oncology, Medical Oncology, Gynecologic Oncology and Gynecology.

Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	2690
Review cases	36071
Total	38761

Radiotherapy procedures

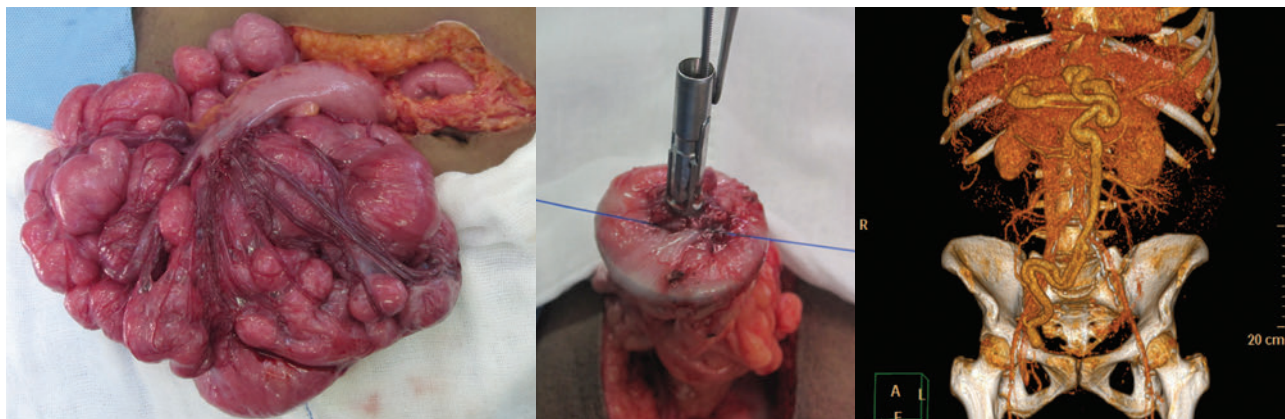
Radical			Palliative
3D CRT	IMRT	2D Planning	
55	119	449	408

Surgical Procedures

Gynaecological cancers	Ovarian	227
	Endometrial	141
	Cervical	26
Urological cancers	Nephrectomy	30
	Penectomy	21
	Bladder	11
Skin		48
Others		54

Concurrent Chemo-Radiotherapy: 260

'E' CLINIC (CHEST & GASTROINTESTINAL)



'E' Clinic caters to patients with thoracic and gastro-intestinal tumors. The multidisciplinary team consisting of well-trained surgical oncologists, radiation oncologists and medical oncologists offers comprehensive state-of-the-art surgery, radiotherapy, and chemotherapy services. There has been an increase in the number laparoscopic and video assisted thoracoscopic surgeries. Image guided and respiration gated radiotherapy and stereotactic body radiotherapy (SBRT), inter-sphincteric resections, vascular reconstruction and liver resections are being practiced where clinically indicated. Clinical training was given to postgraduate students of Radiation Oncology, Surgical Oncology and Medical Oncology of RCC and other Medical Colleges.

Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	3763
Review cases	41690
Total	45453

Radiotherapy procedures

Radical				Palliative
Conformal	IMRT/IGRT	SBRT	Brachytherapy	
363	227	05	12	914

Surgical procedures

Esophagus	Stomach	Hepatobiliary & Pancreas	Colorectal	Thoracic	Others
45	74	46	298	31	253

Chemotherapy

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

Academic activities

Organised a symposium on Hepatocellular Carcinoma, as part of monthly clinical oncology academic meeting on 7 September 2018.

'F' CLINIC (PAEDIATRIC ONCOLOGY)



'F' Clinic managed childhood malignancies up to the age of 14 years. Children from the state of Kerala, southern Tamil Nadu, southern Karnataka, Andamans, Maldives and Lakshadweep attended the clinic for medical care. The clinic provided outpatient and inpatient services including ICU care with ventilatory support. Supportive care, psychosocial counseling, nutritional support, informal education and cultural programs for patients and parents were also provided. Among the new cases reported, acute lymphoblastic leukaemia and brain tumour were the most common malignancies. A total of 1686 children got admitted to the Paediatric ward during the period.

Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	537
Review cases	21697
Total	22234

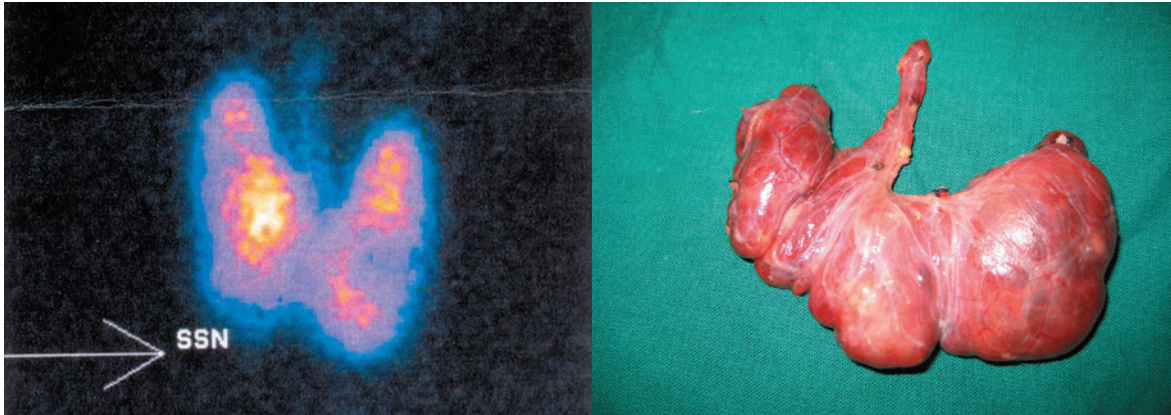
Procedures	
Intrathecal medications	2341
Lumbar puncture	538
Bone marrow aspiration/biopsy	980
PICC line insertion	17
PICC line resuturing	56
Trucut biopsy	27
FNAC	31
Pleural/ascitic tapping	09
Suture/stapler removal	05
Ventilator support	30
Wound C&D, aspiration for C&S	39

Academic activities

Regular training to postgraduate students from RCC, other Medical Colleges in Kerala, SAT Hospital, Thiruvananthapuram and private institutions like Kerala Institute of Medical Sciences and CSI Medical College, Karakkonam.

Trainees: 38
Observers: 12

'G' CLINIC (THYROID)



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

Clinical Services/Procedures Offered

Patients consulted	
Patients	Number
New cases	1128
Review cases	14364
Total	15492

Nuclear Medicine services			
Immunoassays	PET-CT Scan	SPECT Gamma camera	SPECT CT
75288	1636	3673	2141

Radio-iodine therapy	
Thyroid Cancer	Thyrotoxicosis
596	209

Surgical Procedures		
Total Thyroidectomy	Hemi Thyroidectomy	Revision/ Completion Thyroidectomy
52	03	40

Public Relations Activities

Public Relations Officer Sr. Gr.

Surendran Nair V

The Public Relations wing dealt with media relations, Cancer Care for Life scheme, complaint redressal, information counter, public functions, advertisements, co-ordination of volunteers, receptionist training programme, poor patients' welfare fund campaign, Interest Free Medical Advance (IFMA) and preparation of brochures, articles, documentaries and other media publicity materials. Fund raising campaign to promote contribution to the poor patients welfare fund (Akshayapatram) has been organised with the help of several individuals and philanthropic organisations. Contribution received from 1198 donors during this period, has been utilised for food, medicine, and rehabilitation of patients who were not covered under any patient welfare schemes. 436 patients availed financial assistance from this fund, including those patients not included under any welfare schemes and patients from Tamil Nadu. This fund was also utilized for 'free food' to the patients in general wards. During this period 34 wheel chairs were also received from philanthropic individuals and organisations. Awareness classes on various welfare schemes were conducted in different parts of the State. Cancer awareness programmes were also conducted through various audio-visual media. Certificates were issued to the Sixth batch of Receptionist Trainees (8 seats per batch), who successfully completed one year of training. Public relations and communication orientation classes were conducted for students of Master of Social Work, Master of Health Administration and Master of Business Administration.

Honours, Awards and Recognitions Received

Faculty and other Staff

Aleyamma Mathew (Professor), received Fellowship from the APJCP for attending the Annual Conference of Asian Pacific Organisation for Cancer Prevention, Jeju, South Korea. (April 2018) and CONCORD Fellowship to attend a short term course on 'Cancer survival: Principles, methods and applications' as part of CONCORD strategy to improve data collection and quality of analyses, at the London School of Hygiene and Tropical Medicine, London, UK. (July 2018)

Anila KR (Associate Professor), received UICC Fellowship for training in Head and Neck Cancer Pathology at Mayo Clinic, Rochester, Minnesota, USA under Dr. Joaquin J. Garcia, 4 September-12 October 2018.

Bipin T.Varghese (Additional Professor)

- Received Best Abstract Award for the oral presentation, 'Dual baseline imaging with ultrasonogram (USG) and Contrast Enhanced CT (CECT) scan for precision mapping in thyroid cancer surgery' at the Emirates Thyroid Congress, Sofitel Abu Dhabi Corniche, UAE, 15-16 March 2019.
- Received Infosys Academic Enrichment Grant for the observership training in MDT and endoscopic approaches to head and neck cancers, at New Cross Hospital, Royal Wolverhampton NHS trust UK, 30 July-7 August 2018.

Chandramohan K (Additional Professor), received Best Doctor Award 2018 of Government of Kerala, under Autonomous institutions.

Ilin William (Staff Nurse), received Oncology Nurses Association of India Peer Review Award 2019.

Jagathnath Krishna KM (Assistant Professor), received Smt. Surajkali Jain Award from the Indian Society for Medical Statistics for the best published article. (November 2018).

Kalavathy MC (Assistant Professor), was awarded PhD in Epidemiology by Mahatma Gandhi University for the thesis 'Evaluation of Papsmear screening and HPV pattern among women with ASCUS (Atypical Squamous Cells of

Undetermined Significance) in Trivandrum, South Kerala'. (August 2018).

Preethi Sara George (Associate Professor), received CONCORD Fellowship to attend a short term course on 'Cancer survival: Principles, methods and applications' as part of CONCORD strategy to improve data collection and quality of analyses, at the London School of Hygiene and Tropical Medicine, London, UK. (July 2018).

Ramadas K (Professor), received Venus International Foundation Award (VIMA) 2018- Award for Excellence in Radiotherapy from Centre for Health and Medical Sciences of Venus International Foundation, Chennai. (April 2018).

Usha J (Technical Officer), received the Excellence Award for Patient Care-2019 from Ortho Clinical Diagnostics, Mumbai.

Trainees

Alphy Rose James (Research Scholar), was awarded PhD by University of Kerala for the thesis 'Evaluation of molecular basis of drug response in paediatric leukemia for the development of biomarkers for targeted personalised medicine'. (May 2018).

Aswathy CG (Research Scholar), was awarded PhD by Mahatma Gandhi University for the thesis 'Cytogenetic studies and DNA repair gene polymorphism status in inhabitants of high background radiation areas (HBRAs) of Karunagappally, Kerala, India'. (August 2018).

Gisha Rose Antony (Research Scholar), received INSPIRE (Innovation in Science Pursuit for Inspired Research) Scholarship to pursue PhD in India (2018).

Iris Himad (Research Scholar), received Second Prize for Best Poster at the International Conference on HPV & Cancer: Recent Advances 2019, held at Malabar Cancer Centre, Thalassery, 13 January 2019.

Jeethi Ram (Research Scholar), received award for Best Oral Presentation at the National Conference on Drug Discovery and Translational Medicine, Annamalai University, Tamil Nadu, 14-16 March 2019.

Joseph MM (Research Scholar), received Dr. Divya Ravindran Memorial Award 2018 for the best research paper for the year 2017-2018, 'Exploration of biogenic nano-chemobiotics fabricated by silver nanoparticle and galactoxyloglucan with an efficient bio distribution in solid tumor investigated by SERS fingerprinting'. ACS Applied Materials & Interfaces, 9, 19578-19590, 2017. (16 October 2018).

Neethumol OP (Research Scholar), received Best Paper Award (Health Sciences) at the 28th Swadeshi Science Congress held at NIIST, Thiruvananthapuram, 7-9 November 2018.

Preethi GU (Research Scholar), received award for Best Oral Presentation at the Vth National Seminar on Recent Biochemical Approaches in Therapeutics, Thiruvananthapuram, 23-25 January 2019.

Saritha VN (Research Scholar), was awarded PhD by M.S. University for the thesis 'Study of the protein profile of squamous cell carcinoma and its precursor lesions in uterine cervix'. (August 2018).

Sheeja Varghese (Research Scholar), was awarded PhD by University of Kerala for the thesis 'Studies on molecular mechanisms involved in the antimetastatic activity of antitumor plant polysaccharides'. (September 2018).

Unnikrishnan BS (Research Scholar), received Second Prize for Best Oral Presentation at the 38th Annual Conference of Indian Association for Cancer Research, Chandigarh, 1-3 March 2019 and Appreciation Prize for Best Poster presentation at the First National Biomedical Research Competition, AllMS, Rishikesh, 15 October 2018.

Functions, Workshops & Conferences organised

Sl. No.	Name of Programme	Date
1	CME on Medical Oncology Updates	28 April 2018
2	32nd National Annual Conference of Indian Association of Surgical Oncologists	20 September 2018
3	IAP Kerala 2018: Annual Conference of the Paediatric Haematology Oncology Chapter	7 October 2018
4	National Cancer Awareness Day	7 November 2018
5	Cytogenetics FISH Workshop	28-30 November 2018
6	AROICON 2018: 40th Annual National Conference of the Association of Radiation Oncologists of India	29 Nov-2 Dec 2018
7	Foundation Stone Laying of the New 14 Storied Building by Shri. Pinarayi Vijayan, Hon'ble Chief Minister of Kerala	26 December 2018
8	Update on the Management of Haematologic Malignancies	3 February 2019

GALLERY



Inauguration of Annual Conference of the Paediatric Hematology Oncology Chapter (IAP Kerala 2018) by Dr. M.K.C. Nair, Hon'ble Vice Chancellor, Kerala University of Health Sciences (7 October 2018)



Inauguration of National Cancer Awareness Day-2018 by Dr. Rekha A. Nair, Director, RCC (7 November 2018)



Foundation stone laying ceremony of the new block (26 December 2018)



Inauguration of the CME 'Update on the Management of Haematologic Malignancies' by Dr. N. Geetha, Additional Director (Academic) and Head, Department of Medical Oncology, RCC (3 February 2019)

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

INTERNATIONAL

Sl. No.	Delegate/s	Name of Conference/Meeting, Date & Venue. Paper/Talk/Poster presented. (Delegate's status).
1	Aleyamma Mathew	APOCP-9: The 9th General Assembly and International Conference of Asian Pacific Organisation for Cancer Prevention. 19-20 Apr 2018, Jeju, South Korea. Paper: Transition of cancer in populations in India.
2	Aleyamma Mathew, Preethi Sara George	Short Term Course on Cancer Survival: Principles, Methods and Applications. 02-06 July 2018, London School of Hygiene and Tropical Medicine, London, UK. (Delegates)
3	Anoop TM	ESMO Advanced Course on Clinical Questions in Prostate Cancer. 21-22 Sept 2018, Singapore. (Delegate).
4	Beela Sarah Mathew	ATLAS Steering Committee and Eleventh Main Meeting of the Early Breast Cancer Trialists' Collaborative Group. 24-26 June 2018, Oxford, UK. (Participant as Trial Collaborator).
5	Bhagyalekshmi R	37 th Annual ESRA Congress 2018. 12-15 Sept 2018, Dublin, Ireland. (Delegate).
6	Bipin T.Varghese	Emirates Thyroid Congress. 15-16 Mar 2019, Abu Dhabi Corniche, UAE. Oral presentation: Dual baseline imaging with ultrasonogram (USG) and Contrast Enhanced CT (CECT) scan for precision mapping in thyroid cancer surgery.
7	Elizabeth Mathew Iype	3rd European Otolaryngology-ENT Surgery Conference. 08-10 Oct 2018, Heathrow, London. Talk: Sinonasal neuroendocrine carcinoma: surgical management.
8	Francis V. James	ESGO 2018: European Society of Gynaecological Oncology Conference. 4-6 Oct 2018, Lyon, France. Paper: Non-dysgerminomatous tumours of ovary: clinical outcome.
9	Garima Nirmal	13 th St Jude Viva Forum. 28 Feb-03 Mar 2019, Singapore. Poster: 1. Outcome and prognostic variables in childhood Burkitt lymphoma: A study from tertiary cancer care centre in India. Poster: 2. Pediatric Burkitt leukemia: Experience with limited resources.
10	Jagathnath Krishna K M	Workshop on Recent Advances in Joint Models for Cancer and the New Statistical Challenge of Immunotherapy Clinical Studies. 24-25 Jan 2019, University of Bordeaux, Bordeaux, France. (Delegate).
11	Jayalekshmi P	APOCP 9: The 9th General Assembly and International Conference of Asian Pacific Organisation for Cancer Prevention. 19-20 Apr 2018, Jeju, South Korea. (Poster Presentation) 9 th International Conference on High Level Environmental Radiation Areas – For understanding Chronic Low-dose Rate Radiation Exposure Health Effects and Social Impacts (ICHLERA 2018). 24-27 Sept 2018, Hirosaki, Japan. Paper: Cancer risk in relation to HBRs exposure among Karunagappally cohort, Kerala, India.
12	Jayasudha AV	EAHP 2018: 19 th Meeting of the European Association for Haematopathology. 29 Sept-04 Oct, Edinburgh, Scotland. Poster: Primary extranodal lymphomas in Kerala, South India.
13	Jeethi Ram	3 rd World Congress on Breast and Cervical Cancer. 24-25 Sept 2018, Abu Dhabi, UAE. Paper: Galectin-3 contributes for drug resistance and EMT in TNBC.

14	Jubie Raj, Renuka G	Asian Biopsy Master Class Training programme. 17-18 Sept 2018, Bangkok. (Delegates)
15	Kumar BG	The New York State Society of Anaesthesiologists Inc: 72 nd Post graduate Assembly in Anaesthesiology. 7-11 Dec 2018, New York, USA. Paper: Magnesium sulfate nebulisation on the incidence of post-operative sore throat.
16	Madhu Muralee	Video Assisted Thoracic Surgery Training. 11-17 July 2018, China. (Trainee).
17	Maharshi Trivedi	13th St Jude Viva Forum. 28 Feb-03 Mar 2019, Singapore. Poster: 1. Hypogammaglobulinemia in Indian children with ALL during maintenance chemotherapy. Poster: 2. Clinical characteristics and treatment outcomes of children with lymphoblastic lymphoma: Experience from a tertiary cancer care centre. Poster: 3. Clinical characteristics and survival of ALCL.
18	Prasanth VR	50 th SIOP Conference. 15-19 Nov 2018, Kyoto, Japan. Poster: 1. Loss of protective anti-Hbs antibodies and seroconversion to hepatitis B vaccination in children during chemotherapy for acute lymphoblastic leukemia. Poster: 2. Infant neuroblastoma: 10 year experience from a tertiary cancer centre in a low and middle income country.
19	Preethi Sara George	APOCP 9: The 9th General Assembly and International Conference of Asian Pacific Organisation for Cancer Prevention. 19-20 Apr 2018, Jeju, South Korea. Poster: Trends in incidence rates and age at diagnosis of tobacco related cancers in South India.
20	Priya A	MICR (Medical Imaging & Case Reports) 2018. 29-31 Oct 2018, Baltimore, USA. Paper: Retrospective study of diagnostic performance of 18 f FDG PET-CT in cases referred as carcinoma of unknown primary.
21	Rajitha L	ESMO Preceptorship on Gastrointestinal Tumours. 20-22 Nov 2018 Singapore. (Delegate).
22	Rona Joseph	ESMO Preceptorship on Breast Cancer. 26-27 Nov 2018, Singapore. (Delegate).
23	Rony Benson	ESMO Asia 2018 Congress. 23-25 Nov 2018, Singapore. Poster: Patient characteristics, patterns of care and survival outcome in patients with adult testicular granulosa cell tumor: an individual patient data meta-analysis.
24	Shabna Ibrahim	Breast Health Global Initiative, Global Summit. 15-17 Oct 2018, Seattle, USA. Poster: Clinical outcome of stage I-III triple negative breast cancer in young women. ESTRO Asia Meet. 7-9 Dec 2018, Singapore. Paper: Clinical outcomes of stage I-III hormone receptor positive, HER 2 negative breast cancer: a single institution study.
25	Shwetha Seetharam	50 th SIOP Conference. 15-19 Nov 2018, Kyoto, Japan. Poster: Higher incidence of SIADH during induction in pediatric acute lymphoblastic leukemia: An Indian experience.
26	Sreeja AP	Clinical Training in Speech and Swallowing Therapy. 02-13 Jul 2018, General Hospital, Singapore. (Trainee)
27	Sreekumar A	9 th International Conference on High Level Environmental Radiation Areas – For understanding Chronic Low-dose Rate Radiation Exposure Health Effects and Social Impacts (ICHLERA 2018). 24-27 Sept 2018, Hirosaki, Japan. Poster: Thyroid nodule: Prevalence in HBRS, Karunagappally, Kerala, India.
28	Susan Mathews	17th Biennial Meeting of the International Gynecologic Cancer Society. 14-16 Sept 2018. Kyoto, Japan. Paper: Outcome of radically treated cervical cancer: results from a large volume center in South India.
29	Viji S. Pillai	World Congress of Regional Anaesthesia and Pain Medicine. 19-21 Apr 2018, New York. Paper: Safety and efficacy of multiple site thoracic paravertebral nerve block Vs. modified pectoral nerve block for postoperative analgesia after modified radical mastectomies: A randomised controlled trial.

NATIONAL

Sl. No.	Delegate/s	Name of Conference/Meeting, Date & Venue. Paper/Talk/Poster presented. (Delegate's status).
1	Abeesh P	8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Poster: <i>In vitro</i> cytotoxic and <i>in vivo</i> anti-tumor effect of beta sitosterol against daltons lymphoma ascitic tumor models.
2	Ajeesh BL	NextGen Genomics, Biology, Bioinformatics and Technologies (NGBT 2018): Conference SciGenom Research Foundation (SGRF), India. 30 Sep-02 Oct 2018, Jaipur, Rajasthan. (Delegate).
3	Akhil BS	38th Annual Conference of Indian Association for Cancer Research 01-03 Mar 2019, PGIMER, Chandigarh. Paper: Antitumor potential of <i>Clerodendrum infortunatum</i> with minimal toxic effect on human lymphocytes.
		National conference on Drug Discovery and Translational Medicine. 14-16 Mar 2019, Annamalai University, Tamil Nadu. Paper: Selective cytotoxicity of <i>Clerodendrum infortunatum</i> extract against hormone positive and negative breast cancer cell lines.
4	Akhila Raj TV	ISHG 2019: 44 th Annual Meeting of the Indian Society of Human Genetics. 31 Jan-01 Feb 2019, University of Kalyani, Kolkata. Poster: AML patients with variant translocations involving chromosome 8 and 21 without classical RUNX1/RUXIT1.
5	Aleyamma Mathew, Preethi Sara George, Jagathnath Krishna KM	International Conference on Statistics for Twenty-first Century-2018. 13-15 Dec 2018, Dept. of Statistics, University of Kerala. (Invited talks).
6	Amritha P. Kumar	ISHG 2019: 44 th Annual Meeting of the Indian Society of Human Genetics. 31 Jan-01 Feb 2019, University of Kalyani, Kolkata. Poster: Double Philadelphia chromosome, a rare abnormality in pediatric B-lymphocytic leukemia: A case study.
		31 st Kerala Science Congress. 02-03 Feb 2019, Fathima Matha National College, Kollam. Poster: Importance of conventional cytogenetics in pediatric B lymphocytic leukemia.
7	Angela Elizabeth Eapen	AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. Poster: Isolated skeletal muscle metastasis in a case of adenocarcinoma lung.
8	Anie Mariya	NextGen Genomics, Biology, Bioinformatics and Technologies (NGBT 2018): Conference SciGenom Research Foundation (SGRF), India. 30 Sep-02 Oct 2018, Jaipur, Rajasthan. Poster: Whole exome sequencing identifies novel base pair substitutions in breast cancer patients.
9	Anila Basheer	ISACON AGRA 2018. 27-28 Nov 2018, Agra. Paper: A single arm interventional study to see the effectiveness of using a disposable wrap on the laryngoscope blade during intubation in reducing cross-contamination.
10	Anju Anna Abraham, Unnikrishnan	4 th Year in Review: Breast Cancer. 19-20 Jan 2019, Mumbai. (Delegates)
11	Anupama Susmitha, Joseph Jennings MM	National Conference on Transforming Health care: Living with and Beyond Cancer. 24-25 Jan 2019, MIMS Hospital, Kozhikode. (Delegates)
12	Aparna MP	AROICON 2018: 40 th annual conference of AROI. 29 Nov to 2 Dec 2018, Thiruvananthapuram. Paper: Clinical outcomes of stereotactic body radiotherapy (SBRT) for early stage lung cancer at a tertiary care center, a retrospective analysis.

13	Arun Sankar	International CME. 28-30 Sept 2018, MVR Cancer Centre, Kozhikode. Talk: Role of SBRT in early lung cancer.
		NATCON: Indian Association of Surgical Oncology 32nd Annual Conference. 20-23 Sept 2018, Kovalam. Gastric Carcinoma – Panel discussion.
		AROICON 2018: 40 th annual conference of AROI. 29 Nov to 2 Dec 2018, Thiruvananthapuram. Ewing's Sarcoma – Panel Moderator.
14	Archana MG	1 st National Biomedical Research Competition. 15 Oct 2018, AIIMS, Rishikesh. Poster: Green synthesized doxorubicin encapsulated PSP-gold nanoparticles as novel agents for cancer therapy.
15	Beela Sarah Mathew	NATCON: Indian Association of Surgical Oncology 32nd Annual Conference. 20-23 Sept 2018, Kovalam. Panelist on management of early breast cancer.
		AROICON 2018: 40 th Annual conference of AROI. 29 Nov-02 Dec 2018, Thiruvananthapuram. panelist on management of breast cancer.
16	Bharath VM, Lakshmi Haridas, Paul Augustine	International CME. 28-30 Sept 2018, MVR Cancer Centre, Kozhikode. (Panelists).
17	Bharath VM	Evidence Based Management of Cancers. 01-03 Mar 2019, TMH, Mumbai. (Delegate)
18	Binitha R	PHOCON 2018: National Conference of the Pediatric Hemato-oncology Chapter of Indian Academy of Pediatrics. 30 Nov-01 Dec 2018, Bengaluru. Poster: Feasibility of administration and toxicity profile of MAP chemotherapy in pediatric non-metastatic osteosarcoma patients: Experience from a tertiary cancer care centre in India.
19	Bipin T. Varghese	NATCON: Indian Association of Surgical Oncology 32 nd Annual Conference. 20-23 Sept 2018, Kovalam. (Faculty) Video assisted talk: Conservation laryngeal surgery. Chaired a panel discussion on early laryngeal cancers.
		18 th National Meet of the Foundation of Head & Neck Oncology (FHNO). 25-28 Oct 2018, Kolkata. Chaired multidisciplinary session: Oropharyngeal and laryngeal cancers.
		AHEAD 2019. 01-03 Mar 2019, AIIMS, Kochi. Talk: Advanced larynx and hypopharynx cancer: management. Examiner for mock examination sessions.
20	Chandramohan K	Lung Cancer Master Class. 21-22 July 2018, Mumbai. Panelist: Early lung cancer.
		ASICON: Annual National Meeting of Association of Surgeons of India. 29 Dec 2018, Chennai. Talk: What is new in the management of carcinoma stomach?
		Apollo Cancer Conclave. 26 Jan 2019, Chennai. Panel discussion: Indomitable spirit of innovation.
		'An Update on GTD & Gynaecological Oncology' jointly organised by the Association of Gynaecologic Oncologists of India (AGOI) and International Society for Study of Trophoblastic Diseases (ISSTD). 16 Mar 2019, Kovalam. Talk: Evolving role of laparoscopy in gynaecological malignancies.
		Challenging Case Capsules in Cancer: The Competition. 17 Mar 2019, Max Institute of Cancer Care, New Delhi. Member of Supreme Panel of Judges.
21	Divya Gladston	ISACON Kerala 2018. 13 Oct 2018, Kottayam. Paper: Extra oral approach of infra-orbital nerve block for inferior partial maxillectomy as an adjunct to general anaesthesia.
		ISACON AGRA 2018. 27-28 Nov 2018, Agra. Paper: Quality assessment of hand hygiene and effectiveness of 'WHO 6 steps' training among health care personnel in a tertiary care cancer hospital.

22	Drishya Sudarsanan	8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Poster: Evaluation of antioxidant and anti-inflammatory activity of methanolic extract of <i>Amomum subulatum</i> (MEAS).
23	Elizabeth Mathew lype	Awad Head and Neck Oncology Meeting. 18-19 Mar 2019, Lucknow. Talk: The use of stapler in laryngeal surgery.
24	Geetha Raj	ISHG 2019: 44 th Annual Meeting of the Indian Society of Human Genetics. 31 Jan-01 Feb 2019, University of Kalyani, Kolkata. Poster: Delineation of rare chromosomal abnormalities in AML.
25	Gisha Rose Antony	31 st Kerala Science Congress. 02-03 Feb 2019, Fathima Matha National College, Kollam. Oral: Expression of PD-L1 in triple negative breast cancer: a potential biomarker for immunotherapy.
26	Guruprasad CS, Deepthi Boddu, Rumesh Chandar	PHOCON 2018: National Conference of the Pediatric Hemato-oncology Chapter of Indian Academy of Pediatrics. 30 Nov-01 Dec 2018, Bengaluru. (Delegates).
27	Guruprasad CS	IMSOS 2019: Annual Conference of the Indian Musculo Skeletal Oncology Society. 08-10 Mar 2019, Kolkata. (Faculty). Cytogenetics Workshop. 15 Mar 2019, Kolkata. (Delegate).
28	Guruvayoorappan C	2 nd Droplet Digital PCR Symposium 2018. 06 Sept 2018, Bengaluru. (Delegate). 8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Talk: Protective effect of amentoflavone on the inhibition of experimental metastasis and the possible mechanism of action.
29	Hafza Shyla	31 st Kerala Science Congress. 02-03 Feb 2019, Fathima Matha National College, Kollam. Poster: EGFR mutation analysis in NSCLC: exon 20 Q787Q polymorphism.
30	Hariharan S	International Seminar cum Workshop on Diagnostic Cytogenetics. 04-05 Sept 2018, Department of Zoology, Govt. Women's College, Thiruvananthapuram. Talk: Significance of diagnostic cytogenetics in cancer. National Workshop on Techniques for Chromosome Analysis. 21-23 Nov 2018, Department of Botany, University of Kerala. Talk: Chromosome banding. JIPMER Research Leadership Mentoring Programme. 04-08 Feb 2019, JIPMER, Pondicherry. (Trainee).
31	Harikrishnan K, Geetha ML, Sandhya R, Salila M	Training program in Cancer Registration Methodology. 21-22 Jan 2019, NCDIR, Bengaluru. (Delegates).
32	Iris Himall	Hands on Workshop on Basics of Next Generation Sequencing. 24-28 Sept 2018, IBAB, Bengaluru. (Delegate). EMBL-EBI-IBAB workshop on Analysis of Next Generation Sequencing Data. 26-30 Nov 2018, IBAB, Bengaluru. (Delegate). International Conference on HPV & Cancer: recent Advances. 13 Jan 2019, Malabar Cancer Centre, Thalassery. Poster: Variability of microRNA expression profiles in HPV infected cervical cancer cell lines.

33	Jagathnath Krishna KM, Aleyamma Mathew, Preethi Sara George	36 th Annual Conference of Indian Society for Medical Statistics. 01-03 Nov 2018, NIMHANS, Bengaluru. (Delegates).
34	Jayakrishnan R	Annual Meeting of the Indian Cancer Society: Cancer Cure Fund. 18 Mar 2019, Mumbai. (Delegate).
35	Jayalekshmi P	Meeting on Efforts on Establishing Scientific basis in favour of No-LNT. 09 Aug 2018, BARC, Mumbai. (Delegate).
36	Jayasree K	ISACON AGRA 2018. 27-28 Nov 2018, Agra. Paper: Low cost wound infiltration technique using improvised suction catheter: An effective, safe alternative for acute post-operative management: Report of 2 cases.
37	Jayasree K	Ortho Radio Patho Multi Disciplinary Meeting: CME in connection with APMSTS 2018. 04 Oct 2018, Jaipur. (Faculty). APMSTS 2018: Asia Pacific Musculo Skeletal Tumour Society Meeting. 05-07 Oct 2018, Jaipur. Poster: Histological and immunohistochemical prognostic factors in paediatric osteosarcoma: a retrospective study.
38	Jayasudha AV	Multiple myeloma pre update workshop: IgH/TCR clonality and molecular MRD analysis in lymphoid malignancies. 13-14 Sept 2018, Tata Medical Centre, Kolkata. (Delegate).
39	Jeethy Ram	Indo-Australian Symposium on Epithelial-Mesenchymal Transition. 24 Oct 2018, National Centre for Cell Science, Pune, India. Poster: Role of Galectin-3 in epithelial mesenchymal transition of TNBC cells. National Conference on Drug Discovery and Translational Medicine. 14-16 Mar 2019, Annamalai University, Tamil Nadu. Paper: Galectin-3: a potential molecular therapeutic target for triple negative breast cancers.
40	Jiji V	AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. Talk: CT chest.
41	Joseph Vimal, Noble T. Baby	National Seminar on Transcriptome: The Genome Readout. 29 Nov 2018, University of Kerala, Thiruvananthapuram. (Delegates).
42	Joseph Vimal	8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Poster: Genomic and proteomic studies on p53 status in primary and metastatic oral cancer cell lines.
43	Jubie Raj	AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. Panelist in small cell carcinoma lung.
44	Kainickal CT	Pro advance. June 2018, Hyderabad. Talk: Contouring of Ca nasopharynx. ICRO Teaching Program. 01 Sept 2018, Coimbatore. (Faculty). International Conference in Oncology: Role of Organ preservation in Advanced Ca Hypopharynx and Larynx. 28 Sept 2018, Kochi. (Delegate). Head and Neck CME. 28 Oct 2018, Nizam Institute of Oncology, Hyderabad. (Delegate). AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. Talk: 8th TNM classification and its clinical implications.

45	Kurian Cherian, Rexeena Bhargavan, Mira Wagh, Siva Ranjith, Bharath VM, Deepak Janardhan, Lakshmi Haridas, Rajitha L, Pranab K. Prabhakaran	NATCON: 32nd Annual Conference of Indian Association of Surgical Oncology. 20-23 Sept 2018, Kovalam. (Delegates).
46	Lakshmi Haridas, Rona Joseph P	Immuno Oncology Masterclass. 02 Dec 2018, Delhi. (Delegates).
47	Lakshmi Haridas	Immuno oncology Society of India Congress. 15-17 Mar 2019, Mumbai. (Panelist). 'An Update on GTD and Gynaecological Oncology' jointly organised by the Association of Gynaecologic Oncologists of India (AGOI) and International Society for Study of Trophoblastic Diseases (ISSTD). 16 Mar 2019, Kovalam. (Delegate).
48	Madhu Muralee	NATCON: 32nd Annual Conference of Indian Association of Surgical Oncology. 20-23 Sept 2018, Kovalam. Panel discussion: Esophageal cancers. Annual Conference of Association of Surgeons of India. 29 Dec 2018, Chennai. Talk: Controversies in colon cancer management.
49	Maharshi Trivedi, Garima Nirmal	Mid-Term CME of the PHO Chapter of IAP. 30 June-01 July 2018, Bhubaneswar. (Quiz participants). YHOP: Young Hematologist Orientation Programme – 3 rd edition. 18-19 Aug 2018, Lucknow. (Quiz participants).
50	Mahitha MS	ISHG 2019: 44 th Annual Meeting of the Indian Society of Human Genetics. 31 Jan-01 Feb 2019, University of Kalyani, Kolkata. Poster: Erratic transformation of cytogenetic abnormality in the disease progression of a CML patient. 31 st Kerala Science Congress. 02-03 February 2019, Fathima Matha National College, Kollam. Poster: Prognostic significance of additional chromosomal abnormalities in CML patients.
51	Mallika Balakrishnan, Sudha P, Bhagyalekshmi R, Deepthi Prabhu	AORA 2018: Annual National Conference of Academy of Regional Anaesthesia. Aug 2018, Thiruvananthapuram. (Delegates).
52	Malu Rafi	STSCON 2018. 22-23 June 2018, CMC, Vellore. Talk: Role of EBRT in extremity soft tissue sarcoma. International CME. 28-30 Sept 2018, MVR Cancer Centre, Kozhikode. Talk: Brachytherapy in head & neck cancer – SABR.
53	Manasa VG	8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Paper: Coexpression of MiR-144 and MiR-451 regulates oral cancer progression by inhibiting invasion and metastasis.
54	Manjusha G S Saraswathy Amma P	National Nursing Conference. 30 Apr-01 May 2018, Govt. College of Nursing, Thiruvananthapuram. (Delegates).

55	Manjusha Nair	PHOCON 2018: National Conference of the Pediatric Hemato-oncology Chapter of Indian Academy of Pediatrics. 30 Nov-01 Dec 2018, Bengaluru. (Faculty). Talk: Non-Wilms' kidney tumours: How I manage these entities? Poster: Trend over time in epidemiology and outcome of pediatric neuroblastoma: Experience from a Regional Cancer Centre in India.
		IAPCON 2019: International Conference of the Indian Association of Palliative Care. 08-10 Feb 2019, Kochi. (Delegate).
56	Mary Thomas	1st National Conference on Anesthesia and Perioperative Care. 19 Aug 2018, TMH, Mumbai. Panelist: Strategies for opioid sparing & oncoanesthesia. Advanced Airway Management Workshop 2019 approved by Difficult Airway Society (DAS) UK & All India Difficult Airway Association (AIDAA). 20 Jan 2019, Kochi. (Faculty).
57	Mira Wagh	Minimally Access Oncosurgery Training. May 2018, Indo-American Cancer Hospital and Research Institute, Hyderabad. (Trainee). Certificate Course in Research Methodology. September 2018- February 2019, Indian Institute of Public Health, Gandhinagar. (Trainee).
58	Neethumol OP	28 th Swadeshi Science Congress. 07-09 Nov 2018, CSIR-NIIST, Thiruvananthapuram. Paper: Use of foldscope and its application in cancer research.
59	Nimmy	ISACON AGRA 2018. 27-28 Nov 2018, Agra. Paper: Upper lip bit test in predicting difficult airway.
60	Pallavi Nair	AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. Poster: Prospective comparative study of dosimetric parameters in 3D versus 4 D CT image acquisitions in conformal radiotherapy of carcinoma lung.
61	Paul Augustine	NATCON: 32nd Annual Conference of Indian Association of Surgical Oncology. 20-23 Sept 2018, Kovalam. (Organiser/video presentation/panelist). AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. (Panelist). 2nd Annual International Review in GI Cancers. 09-10 Mar 2019, Mumbai. (Chairperson).
62	Pranab K. Prabhakaran	ISIVR, National Conference. 10 Nov 2018, Kochi. (Delegate).
63	Preethi GU	1 st National Biomedical Research Competition. 15 Oct 2018, AIIMS, Rishikesh. Poster: Fabrication and application of stem cell differentiation promoting polysaccharide hydrogel silver nano-crystalline composite wound dressing. 28 th Swadeshi Science Congress. 07-09 Nov 2018, CSIR-NIIST, Thiruvananthapuram. Paper: Comparison of stem cell differentiation, drug release and tumor reduction in polymeric scaffolds with different architecture. V th National Seminar on Recent Biochemical Approaches in Therapeutics. 23-25 Jan 2019, University of Kerala, Thiruvananthapuram. Paper: pH sensitive hydrogel for tumor specific drug delivery. 8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Paper: Porous polysaccharide scaffolds: an implantable material for solid tumor reduction.
64	Preethi TR	Amrita Annual Pathology Update. 15-15 Jul 2018, AIMS, Kochi. (Delegate). AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. (Faculty). Panel discussion: Gynaecological cancers.

65	Priya A	The Asian Oceanian Society of Pediatric Radiology (AOSPR) Meet. 14 Sept 2018, Chandigarh. Posters: 1. The many faces of pediatric Langerhans cell histiocytosis. 2. Role of imaging in paediatric hematolymphoid malignancies.
		NATCON: 32nd Annual Conference of Indian Association of Surgical Oncology. 20-23 Sept 2018, Kovalam. (Panelist).
		AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. Talk: Imaging of nasopharynx.
66	Priya Balakrishnan	NATCON: 32nd Annual Conference of Indian Association of Surgical Oncology. 20-23 Sept 2018, Kovalam. Advanced Breast Cancer – Panel discussion.
67	Priya G	ISHG 2019: 44 th Annual Meeting of the Indian Society of Human Genetics. 31 Jan-01 Feb 2019, University of Kalyani, Kolkata. Poster: A study of unstable chromosome aberrations in lymphocytes of individuals living in the high background radiation areas in Karunagappally, Kerala, India.
68	Priya Mary Jacob	15 th Clinical Cytometry Course (MRD Workshop) 2018. 01-04 Aug 2018, ACTREC, TMH, Mumbai. (Delegate).
		Basic Flow Cytometry Course Organised by BD-NCBS of Centre of Excellence in Flow Cytometry. 07-10 Aug 2018, Tata Institute of Fundamental Research, Bengaluru. (Delegate).
		11 th TCS Annual Meeting and Flow Cytometry Workshops: Flow Cytometry: Multi-Dimensional & Multi-Faceted. 29 Oct-01 Nov 2018, AIIMS, New Delhi. (Invited faculty). Chairperson in a session by Prof. Orfao, in advanced flow cytometry workshop. Oral presentation in interesting flow cytometry cases session.
69	Priyakumari T	AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. (Panelist). Panel discussion on Pediatric bone tumours.
70	Rachel Cherian Koshy	1st SOAPCCON: Onco-anaesthesia and Peri operative Care. 17-19 Aug 2018, Tata Memorial Hospital, Mumbai. Paper: Efficacy of pregabalin as a premedicant in head and neck oncosurgical cases.
71	Raghukumar P, Saju B, Zhenia Gopalakrishnan, Sharika V. Menon	International Symposium on Emerging trends in radiation therapy. 08-09 Mar 2019, Vellore. (Delegates).
72	Ramadas K	Christian Medical College Alumni meeting 2018. 06 Jan 2018, CMCVellore, Tamil Nadu. (Key note Speaker).
73	Rekha A. Nair	Multiple Myeloma Pre Update Workshop. IgH/TCR clonality and molecular MRD analysis in lymphoid malignancies. 13-14 Sept 2018, Tata Medical Centre, Kolkata. (Delegate).
74	Rema P	International CME. 28-30 Sept 2018, MVR Cancer Centre, Kozhikode. Talk: Recent advances in colposcopy.
		MENOCON 2018: Annual Meeting of Indian Menopausal Society. 20-21 Oct 2018, Kozhikode. Talk: Basics of colposcopy.
75	Remya K	31 st Kerala Science Congress. 02-03 Feb 2019, Fathima Matha National College, Kollam. Paper: Chemotherapeutic loaded polysaccharide-metal nanoformulation for anti-glioma therapy.
76	Remya Krishnan	28 th Swadeshi Science Congress. 07-09 Nov 2018, CSIR-NIIST, Thiruvananthapuram. Talk: <i>Acrostichum aureum</i> scavenges free radicals and exhibit anti-cancer activity <i>in vitro</i> .

77	Reshma PL	1 st National Biomedical Research Competition. 15 Oct 2018, AIIMS, Rishikesh. Paper: Paclitaxel loaded Galactoxyloglucan nanoparticles to overcome multi-drug resistance in breast cancer cells.
		8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Poster: Galactoxyloglucan cross linked paclitaxel nanoparticles to overcome multi-drug resistance in cancer cells.
78	Reshma PL, Syama HP, Unnikrishnan BS	National Workshop on Drug Discovery from Plants using Bioinformatics tools. 25-27 Mar 2019, Saraswathy Thangavelu Centre of JNTBGRI, Puthenthope, Thiruvananthapuram. (Delegates).
79	Rexeena Bhargavan	International CME. 28-30 Sept 2018, MVR Cancer Centre, Kozhikode. (Delegate).
80	Rona Joseph P	Year in Review Breast Cancer: 10-11 Feb 2018 Mumbai. (Delegate).
81	Rony Benson	ISMPO Annual Conference. 16-18 Nov 2018, Jaipur. Paper: Does early light chain response predict response to treatment in patients with multiple myeloma?
82	Roshni S	AROICON 2018: 40th annual conference of AROI. 29 Nov-02 Dec 2018, Thiruvananthapuram. Panel moderator: Small cell carcinoma.
83	Saritha VN	International Conference on HPV & Cancer: Recent Advances. 13 Jan 2019, Malabar Cancer Centre, Thalassery. Poster: Correlation of CINtecPLUS cytology with multiplex PCR for HPV identification and HPV associated proteins in exfoliated cervical epithelial cells.
		38th Annual Conference of Indian Association for Cancer Research. 01-03 Mar 2019, PGIMER, Chandigarh. Poster: Alternative techniques for identification of cervical intra epithelial lesions: correlation of conventional cytology with CINtecPLUS cytology, DNA replication licensing proteins and surface enhanced Raman spectroscopy.
84	Shaji Thomas	Association of Plastic Surgeons of India, Kerala State Conference. 06-08 May 2018, Kumarakam. Paper: Supra clavicular flaps in head and neck reconstruction.
		TOUSS: Workshop on Trans Oral Ultrasonic Surgery. 16-17 Aug 2018, AIMS, New Delhi. Talk: Reconstructive options in head and neck defects after oncologic resections.
		Association of Surgeons of India Kerala Chapter Annual CME. 08-09 Sept 2018, Believers Church Medical College, Thiruvalla. Video Presentation: Technique of thyroidectomy.
		NATCON: 32nd Annual Conference of Indian Association of Surgical Oncology. 20-23 Sept 2018, Kovalam. Video Presentation: Submental artery flap for intraoral reconstruction. Panel discussion: Head and neck reconstruction.
		State Conference of Association of Plastic of India. 08-10 Feb 2019, Thiruvananthapuram. Paper: Island nasolabial flap for oral cavity reconstruction.
85	Sheeja K	8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Poster: Effect of α -mangostin on NLRP3 inflammasome: <i>In vitro</i> and <i>in silico</i> analysis.
86	Shema C, Rethidevi GS, Ranichandra V	19 th National Oncology Nursing Conference: Oncology Nursing from Bench to Clinical Excellence. 11-12 Oct 2018, Tata Memorial Centre, Kolkata. (Delegates).
87	Shijikumari NG, Sreeja AP	CAN- REHAB: Enhancing Access to Cancer Rehabilitation. 25-27 Jan 2019, Tata Memorial Centre, Mumbai. (Delegates).

88	Shiji R	BioMET-2018: International Conference on Biomaterials, Bioengineering and Biotheranostics. 24-28 July, 2018, VIT university, Vellore. Paper: Biocompatible and pH sensitive polysaccharide: gold nanoclusters for real-time tumor imaging.
		V th National Seminar on Recent Biochemical Approaches in Therapeutics. 23-25 Jan 2019, University of Kerala, Thiruvananthapuram. Paper: Punica granatum polysaccharide shielded superparamagnetic iron oxide nanoparticles for reduction sensitive and targeted methotrexate delivery.
		31 st Kerala Science Congress. 02-03 Feb 2019, Fathima Matha National College, Kollam. Paper: Polysaccharide - gold nanoclusters as proficient green signaling agent in solid tumor detection.
		International Conference on Nanomedicine (ICON)-2019. 25-26 Feb 2019, Madurai Kamaraj University, Madurai. Poster: pH responsive ratiometric biogenic gold nanoclusters for tumour targeted imaging.
		National Conference on Drug Discovery & translational Medicine (DDTM-2019). 14-16 Mar 2019, Annamalai University, Tamil Nadu. Paper: Punica granatum polysaccharide as an intelligent nano-carrier for targeted delivery of doxorubicin in solid tumor with reduced toxicity.
89	Sindhu Nair P, Rari P. Mony	CYTOCON 2018: 48th Annual Conference of Cytopathologists. 01-03 Nov 2018, Goa. (Delegate).
90	Sindhu Nair P	81st IAPM Kerala Chapter Meeting. 08 Sept 2018, Cochin Cooperative Medical College, Ernakulam. (Delegate).
		AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. (Faculty). Panelist in the symposium for small cell carcinoma lung.
		82nd IAPM Chapter Meeting. 09 Feb 2019, AIMS, Kochi. (Delegate).
		Minimalist Pathology: 10th National CME in Pathology. 09-11 Feb 2019, AIMS, Kochi. (Delegate).
91	Sindumony S, Veena Devi Thankachi	Symposium on Reimagining Patient Care: Leadership, Technologies & Automation in Clinical Chemistry. 19-20 Jan 2019, Chennai. (Delegates).
92	Sinto MS	8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Paper: EGFR induced NF- κ B activation establishes rationale for combination therapy in oral squamous cell carcinoma.
93	Sivanandan CD	AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. Poster: A Radical conformal radiotherapy and concurrent chemotherapy in loco-regionally advanced and medically inoperable early stage non-small cell lung cancer: A single institution experience.
94	Sreeja Purushothaman	38th Annual Conference of Indian Association for Cancer Research. 01-03 Mar 2019, PGIMER, Chandigarh. Poster: Amalaki Rasayana: a rejuvenating Ayurvedic drug exhibits selective cytotoxicity to triple negative breast cancer cells and prevents metastasis.
95	Sreelekha R	19 th National Oncology Nursing Conference: Oncology Nursing from Bench to Clinical Excellence. 11 Oct 2018, Tata Memorial Centre, Kolkata. Talk: Challenges in implementation of EBP in safe handling of cytotoxic drugs.
96	Sreelekha TT	1 st National Biomedical Research Competition. 15 Oct 2018, AIIMS, Rishikesh. (Delegate).

97	Subha R	CME on pain and palliative care organised by ISA Kerala State Chapter in association with ISA. 5 Aug 2018, Kolenchery. (Delegate).
		8th National conference of the Association of Regional Anaesthesia. 10-12 Aug 2018, Thiruvananthapuram. (Delegate)
98	Suchetha S	NATCON: 32nd Annual Conference of Indian Association of Surgical Oncology. 20-23 Sept 2018, Kovalam. Moderator panel discussion: Cancer endometrium
		International CME. 28-30 Sept 2018, MVR Cancer Centre, Kozhikode. Panelist: Recurrent ovarian cancer.
99	Sujathan K	International Conference on HPV & Cancer: Recent Advances. 13 Jan 2019, Malabar Cancer Centre, Thalassery. (Delegate).
		38th Annual Conference of Indian Association for Cancer Research. 01-03 Mar 2019, PGIMER, Chandigarh. Paper: The impact of multiple markers as prognostic indicator of non small cell lung cancer: a study in sputum samples.
		National Conference on Drug Discovery and Translational Medicine. 14-16 Mar 2019, Annamalai University, Tamil Nadu. Invited Talk: The road ahead for cervical cancer control in India.
100	Sujathan K, Sreelekha TT	31 st Kerala Science Congress. 02-03 Feb 2019, Fathima Matha National College, Kollam. (Delegates).
101	Sulfath TP	NextGen Genomics, Biology, Bioinformatics and Technologies (NGBT 2018): Conference SciGenom Research Foundation (SGRF), India. 30 Sep-02 Oct 2018, Jaipur, Rajasthan. Poster: Distinctive gene mutations with functional consequences identifies in TNBC patient by exome sequencing.
		31 st Kerala Science Congress. 02-03 Feb 2019, Fathima Matha National College, Kollam. Oral: The hippo pathway effector, YAP regulates cell proliferation and survival in breast cancer cells.
102	Syama HP	8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Paper: Probing the antimicrobial and wound healing potential of biogenic silver nanoparticle reinforced topical emulsion.
103	Swapna R. Nath	Third Certificate Course in Hospital Infection Control & Antimicrobial Stewardship. 30 July-03 Aug 2018, CMC, Vellore. (Delegate).
		15 th National workshop on Diagnostic Methods in Clinical Microbiology. 28-31 Aug 2018, JIPMER, Pondicherry. (Delegate).
		3 rd National Workshop on Hospital Infection Control. 18-23 Feb 2019, JIPMER, Pondicherry. (Delegate).
104	Thayal Singh Elias, Raghukumar P, Saju B, Zhenia Goplakrishnan, Sharika V. Menon, Debjani Phani, Shaiju VS, Sarin B	AROICON 2018: 40th Annual Conference of Radiation Oncologists of India. 29 Nov-02 Dec 2018, Thiruvananthapuram. (Delegates).
105	Trophy S	Advanced Key Operator Training Program on Vitros 5600. 18-22 June, 2018, Mumbai. (Delegate).

106	Unnikrishnan BS	<p>1st National Biomedical Research Competition. 15 Oct 2018, AIIMS, Rishikesh. Poster: Doxorubicin loaded glycosylated metal nanosystem: A promising <i>in vivo</i> drug delivery system for solid tumor management.</p> <p>28th Swadeshi Science Congress. 07-09 Nov 2018, CSIR-NIIST, Thiruvananthapuram. Paper: Doxorubicin conjugated carboxymethyl galactoxyglucan coated iron oxide nanoparticles: A potent nanodrug delivery system.</p> <p>38th Annual Conference of Indian Association for Cancer Research. 01-03 Mar 2019, PGIMER, Chandigarh. Paper: Doxorubicin loaded folic acid-galactoxyglucan iron oxide nanoparticles: a platform with high potential for targeted drug delivery.</p>
107	Venugopal A	<p>ISACON KERALA 2018: 42nd Annual Conference of ISA Kerala State Chapter. 13-14 Oct 2018, Kottayam. (Delegate).</p> <p>ISAMIDCON 2019 and PG Quest. 09-10 Mar 2019, Kannur. Chaired a session on PG QUEST and Midterm CME: A case of liver disease coming for surgery. Talk: Post operative laryngospasm.</p>
108	Vijayalekshmi K	<p>Transmedcon 2018: Annual Conference of the Indian Society of Transfusion Medicine. 23-25 Nov 2018, Kochi. Chaired a session on Rational use of blood components.</p>
109	Vishnu Walsan K	<p>8th Annual Meeting of Indian Academy of Biomedical Sciences and Conference on Deliberation on Translation of Basic Scientific Insights into Affordable Healthcare Products. 25-27 Feb 2019, CSIR-NIIST, Thiruvananthapuram. Poster: Molecular mechanisms of cytotoxicity induced by mangroves and mangrove derived compounds.</p>

ONGOING RESEARCH PROJECTS

EXTRAMURAL

Sl. No.	Principal Investigator. Project Title. Funded by. (Status).
BREAST	
1	Beela Sarah Mathew. Adjuvant Tamoxifen in breast cancer Longer Against Shorter (ATLAS). Oxford University. (Completed). 654 patients randomized, 268 patients expired.
2	Rajeev KR. ADD-ASPIRIN - A Phase III, double blind, placebo-controlled, randomized trial assessing the effects of aspirin on disease recurrence and survival after primary therapy in common non-metastatic solid tumours. MRC, UK Cancer Research, NHS, NCRI, TMH, Mumbai. (Ongoing). 13 patients registered and 11 randomized
3	Ramadas K. Randomised controlled evaluation of clinical early detection in the control of breast cancer in low-and medium-resource settings. International Agency for Research on Cancer; Lyon, France. (Ongoing).
CHEST & GASTRO-INTESTINAL	
4	Mira Wagh. Multicentric case study in carcinogenic and non-carcinogenic polycyclic aromatic hydrocarbons and its impact on lung cancers: Role of smoking and occupational exposure. Science and Engineering Research Board, Dept. of Science and Technology, Govt. of India. (Ongoing).
HEAD & NECK	
5	Bipin T. Varghese. Development of an indigenous voice prosthesis for rehabilitation of laryngectomies and its clinical evaluation. Kerala State Council For Science, Technology & Environment, Govt. of Kerala. (Ongoing).
6	Ramadas K. Estimation of tobacco attributable mortality in Kerala. International Agency for Research on Cancer; Lyon, France. (Ongoing).
7	Ramadas K. Biomarkers of Oral Cancer Risk Prediction. Department of Biotechnology, Govt. of India. (Ongoing).
8	Ramadas K. Role of human papillomavirus infection and other co-factors in the aetiology of head and neck cancer in India. Indian Council of Medical Research, Govt. of India. (Ongoing).
CANCER EPIDEMIOLOGY	
9	Paul Sebastian (till 24 th August 2018). Rekha A. Nair (from 15 th October 2018). Comparative study of genetic, clinical and epidemiological factors of breast cancer in Indian population. Indian Council of Medical Research, Govt. of India. (Ongoing). <i>It is a Multi centric Epidemiological study to evaluate the risk factors and genomic basis of breast cancer in India with the specific objective to determine Life-style, clinical, Hormonal and other factors associated with breast cancer & to identify the mutational landscape of breast cancer (exome & transcriptome with validation).</i>
10	Paul Sebastian (till 24 th August 2018). Aleyamma Mathew (from 15 th October 2018). Pattern of care and survival studies in cancers of cervix, female breast and head and neck. Indian Council of Medical Research, Govt. of India. (Ongoing). <i>Hospital based cancer survival rates are used to evaluate the care provided in the hospital and it is named as, Pattern of Care and Survival Studies (POCSS). Systematic data abstraction on patterns of care and survival in cancers of the uterine cervix, breast and head and neck cancer patients reporting to the RCC has been started since 2006 in collaboration with the NCRP of ICMR and expanded to obtain survival of ovarian cancer by the NCRP in 2017. On an average 30,000 patient data is abstracted & follow up information is updated regularly.</i>
11	Paul Sebastian (till 24 th August 2018). Aleyamma Mathew (from 15 th October 2018). Hospital-based cancer registry. Indian Council of Medical Research, Govt. of India. (Ongoing). <i>HBCR of RCC, Thiruvananthapuram is in its 36th year under the network of National Cancer Registry Programme (NCRP), Indian Council of Medical Research (ICMR), Govt. of India.</i>
12	Aleyamma Mathew. Population Based Cancer Survival studies (PBCSS). Indian Council of Medical Research, Govt. of India. (Ongoing). <i>Population based cancer survival (PBCS) provides an idea of the effectiveness of the overall cancer control strategy in the registry area. It gives a baseline on impact of cancer and its treatment on the population and help plan health services facilities for improvement of survival. Population Based Cancer Survival Study on Cancers of the Breast, Cervix, Head & Neck, started in the division in 2017 in collaboration with NCRP of ICMR.</i>

13	<p>Aleyamma Mathew. Population Based Cancer Registry,Thiruvananthapuram. Indian Council of Medical Research, Govt. of India. (Ongoing).</p> <p><i>PBCR,Thiruvananthapuram covering the entire district (3.3 million populations) is in its 7th year under the network of NCRP (ICMR) in 2018.The Crude cancer incidence rate (188 and 197 per 100,000 males and females respectively for the year 2017.</i></p>
14	<p>Preethi Sara George & Aleyamma Mathew. Assessment of Cancer Density Maps for Cancer Control in Trivandrum, South India. New India Assurance Company LTD. (Ongoing).</p> <p><i>The objective of this study is to obtain density maps of cancer patients by using Global Positioning System (GPS) and examine the relationship between cancer incidences and its land cover as well as elevation of Trivandrum district.The company donated a 5-seater vehicle and the GPS systems for doing the work.This kind of spatial analysis by utilizing sophisticated mapping techniques and cancer registry data was first of its kind in India.</i></p>
CANCER RESEARCH	
15	<p>Kannan S. Biology of NFκB and STAT3 transcription factors in oral carcinogenesis. Kerala State Council for Science, Technology & Environment, Govt. of Kerala. (Completed).</p> <p><i>The present study focused on the biology NFκB p65 and STAT3 transcription factors in oral cancer. Preliminary data reveals that EGFR has significant role in the expression and/or activation of NFκB p65 or STAT3 in oral cancer. siRNA mediated EGFR silencing studies in oral cancer cell lines have shown that EGFR positively controlling the expression or activation regulation of NFκB p65 or STAT3 signaling and its target gene expression. Induction of EGFR signaling by EGF treatment also enhanced the NF-κB p65 or STAT3 phosphorylation and subsequent nuclear accumulation. NF-κB or STAT3 signaling inhibition reduced the cell proliferation, colony formation, tumor spheroid formation, migration and invasion and also enhanced the apoptotic rate. Thus the present study postulates a better strategy can be evolved using EGFR/NFκB/STAT3 axis to improve the management of oral cancer</i></p>
16	<p>Kannan S. Delineate the biological significance of miRNAs altered in oral carcinoma. Dept. of Biotechnology, Govt. of India. (Ongoing).</p> <p><i>The present study aims to validate the miRNA signature obtained from the previous study in established oral cancer cell lines, to unravel the biological significance of altered miRNAs in oral carcinogenesis and hence delineate the associated pathways using various in vitro techniques.</i></p>
17	<p>Sujathan K. CerviSCAN: Image analysis for reliable and cost effective cancer detection. Swedish Research Link, Govt. of Sweden. (Ongoing).</p> <p><i>Malignancy Associated Changes in normal looking cells seen adjacent to malignant cells is found to be significant for disease diagnosis. This information is being tried in computerized Pap smear analysis system to increase the sensitivity of this method.</i></p>
18	<p>Sujathan K. Study of the significance of DNA replication licensing proteins as markers of lung cancer and its precursors. Dept. of Biotechnology, Govt. of India. (Completed).</p> <p><i>Developed a robust technique to extract the whole cell content of sputum without any cell distortion. Molecular pathological investigations including RT-PCR can be performed on cells extracted from sputum samples. We hope this This information can be translated in the clinical sputum cytology practice to supplement the conventional sputum cytology. Differential diagnostic markers of lung adenocarcinoma in sputum samples have been defined, which will be very helpful for sub-typing Non- Small Cell Lung Carcinomas.</i></p>
19	<p>Sujathan K. Significance of Surface Enhance Raman Scattering techniques in identifying squamous cell carcinoma and its precursor lesions in cervical smear. Council of Scientific and Industrial Research, Govt. of India. (Completed).</p> <p><i>A label free ultrasensitive technique to generate a differential spectrum for the identification of normal, SIL and squamous cell carcinoma of the cervix employing SERS modality has been developed where in colloidal gold nano particle was used as the SERS substrate. We have envisaged fabricating a portable handheld micro Raman system which will translate the validated spectral pattern for cervical cancer screening.</i></p>
20	<p>Sujathan K. Development of Multiplexing detection platform for breast cancer biomarkers by non-invasive Surface Enhanced Raman Scattering Nanoprobe. Dept. of Science and Technology, Govt. of India. (Ongoing).</p> <p><i>A multiplexing system using Surface enhanced Raman spectroscopy has been developed.Validation of the same in tissue samples are in progress.</i></p>
21	<p>Sujathan K. Quantum dots based fluorescent multiplexing platform for histoclinical classification of breast cancers. Dept. of Biotechnology, Govt. of India. (Ongoing).</p> <p><i>A multiplex immunohistochemistry method using quantum dots is being developed for the histoclinical classification of breast cancer.</i></p>

22	<p>Sujathan K. Development of a low cost automated Screening system for Cervical Cancer (Cervi-SCAN-II). Ministry of Electronics and Information Technology & Dept. of Health Research. (Ongoing).</p> <p><i>We have already developed a semi-automated system for Pap smear screening. The present programme is intended to make it a fully automated system.</i></p>
23	<p>Sujathan K. Nano Biosensors and Microfluidics for Health care Council for Scientific and Industrial Research, Govt. of India. (Ongoing).</p> <p><i>A hand held Raman spectroscope is being developed in this project, which will be validated for the multiplex immunohistochemical analysis of breast tumors.</i></p>
24	<p>Lakshmi S. Comparative study of Genetic, Clinical and Epidemiological risk factors of breast cancer in Indian population. Indian Council of Medical Research, Govt. of India. (Ongoing).</p> <p><i>Aim of this project is to evaluate the risk factors and genomic basis of breast cancer in India. Total 84 tissue samples (Tumor tissues, adjacent normal tissues & blood samples) were collected. Among the 84 samples, 44 samples belongs to HR positive & Her2 negative group, 20 samples belongs to triple positive group, 12 samples belongs to triple negative group and 8 samples belongs to HR negative & Her2 positive group. DNA isolated from 83 samples, RNA isolated from 42 samples Tumor and adjacent normal tissue and blood samples from breast cancer patients are collected from patients will be used for exome and transcriptome analysis</i></p>
25	<p>Lakshmi S. Mutation Analysis of EGFR, KRAS, and BRAF genes in non-small cell lung cancer in Indian population. Kerala State Council for Science, Technology & Environment, Govt. of Kerala. (Ongoing).</p> <p><i>A total of 168 samples were collected prospectively from newly diagnosed patients with adenocarcinoma. PCR Amplification of EGFR (Exon 18, 19, 29, 21) gene, EGFR Exon Sequencing and Mutation Analysis is being carried out. Genomic DNA was isolated from 153 samples of which 53 were selected for further analysis based on DNA quality and quantity. Three of patients had mutations in exon 19, 20 and 21 (exon 19 deletion; Exon 20 S768I and Exon 21 L858R). In one of the patients, mutation was found in the missense variant EGFR exon 20 S768I and EGFR EX 20V774M. In exon 20 a variant from CAG to CAA at codon 787 (236 I G>A) was identified in 13 patients (32.5 %) which is a genomic variation of EGFR. This is a synonymous mutation because CAA and CAG are coding the same amino acid Glutamine (Q787Q).</i></p>
26	<p>Lakshmi S. Global high through put methylome and transcriptome profiling for the identification of novel therapeutic targets in TNBC and experimental validation. Dept. of Biotechnology, Govt. of India. (Ongoing).</p> <p><i>Procured the following TNBC cancer cell lines, MDA-MB-231, SUM1315, SUM190 and Hormone receptor positive cells BT474, ZR-75, MCF -7. Assessment of TNBC db leads us to the deduction of data available on TNBC and non-TNBC. From the TCGA-BRCA data set, it was also observable that with high YAP/TAZ expression the overall survival rate of the patients were declined. It was also evident that compared to the non-TNBC cell lines, YAP/TAZ, display a higher mRNA fold change.</i></p>
27	<p>Hariharan S. Clinical relevance of molecular and gene expression signatures in AML patients with normal cytogenetics for a prognostically prioritized molecular classification. Kerala State Council for Science, Technology & Environment, Govt. of Kerala. (Ongoing).</p> <p><i>Two to three ml peripheral blood / bone marrow samples were collected from 82 AML patients after obtaining a written informed consent. Cytogenetic investigations were carried out in all the samples, FISH analysis was carried out to check the recurrent abnormalities. Identified 50 patients with Normal cytogenetics (AML NC). DNA isolated from the AML NC patients and kept in the freezer for molecular studies. The important molecular markers associated with the treatment response in AML are, FLT3, NPM1, IDH1, IDH2, DNMT3, ASXL1, CEBPA, TET2, RUNX1, E2H2, WTI, BAALC, ERG, MNI, AFI, EVI.</i></p>
28	<p>Hariharan S. Development of indigenous software for karyotyping and chromosome abnormality detection. Kerala State Council for Science, Technology & Environment, Govt. of Kerala. (Ongoing).</p> <p><i>This project is aimed to develop indigenous low cost cytogenetic software for karyotyping. The metaphase images were used for developing the software, in collaboration with College of Engineering Karunagappally. Currently the software available is imported from foreign countries and is very costly. The work is going on.</i></p>

29	<p>Sreelekha TT. Chemotherapeutics loaded polysaccharide-nanoparticles to overcome drug resistance in cancer cells and to cross blood brain barrier. Council of Scientific and Industrial Research, Govt. of India. (Completed).</p> <p><i>Polysaccharide PST001 was exploited for developing biocompatible nanocarrier systems for loading chemotherapeutic agents and used as efficient cancer nanomedicines. PST-DOX NPs and PST-GOLD-DOX NPs were developed and characterized. Cellular uptake mechanisms by Uwas evaluated using flow cytometry and intracellular DOX availability was quantified using HPLC. The pharmacokinetics, biodistribution, and brain accumulation were evaluated. No significant accumulation in the brain was observed indicating that the nanoparticles are not crossing the intact BBB in healthy animals. This is advantageous since undesired brain accumulation is not happening which wouldn't elicit any toxicological response. Therefore, these formulations could significantly improve the therapeutic index and can be developed as an efficient nanomedicine for brain tumor.</i></p>
30	<p>Sreelekha TT. Preparation and biological evaluation of galactoxyloglucan based scaffolds for stem cell differentiation and tumor reduction. Kerala State Council for Science, Technology & Environment, Govt. of Kerala. (Ongoing).</p> <p><i>Three scaffolds were developed using polysaccharide, galactoxyloglucan (PST001). Studies showed that the scaffolds were biocompatible and can be used as an implantable material for biomedical applications. Cells grown on different scaffolds showed morphological differences and viability was also changed accordingly. The property of the scaffolds may be used for a 3D model for drug development studies. Chemotherapeutic drug, doxorubicin was adsorbed to the surface of the scaffolds and release kinetics were observed. The study observed that even if the scaffolds were prepared using same polymer, the drug release kinetics and cell morphology will be different with respect to the architectures of the scaffolds.</i></p>
31	<p>Sreelekha TT. Development of antimicrobial porous polymeric bandage for skin tissue regeneration Board of Research in Nuclear Sciences, Govt. of India. (Ongoing).</p> <p><i>PST001-PVA blend was prepared at a ratio of 80:20 and electrospun at specific conditions. After spinning, nanofiber mat was peeled off from the foil and cross linked using glutaraldehyde vapours in a desiccator at 70°C and characterized. Biocompatibility analysis was done using hemolysis assay. The results proved that the scaffolds are highly biocompatible with a hemolysis rate below 1.4%. Blood clotting potential for electrospun scaffolds was above 40% which was good indicative that the scaffolds can induce blood clotting. Indirect MTT assay results revealed that the scaffolds were non-toxic to normal cell line 3T3L1, which suggested the biocompatibility of the scaffolds.</i></p>
32	<p>Sreelekha TT. Engineering intelligent theranostic nanocarrier for targeted therapy and diagnosis of cancer Science and Engineering Research Board, Dept. of Science and Technology, Govt. of India. (Ongoing).</p> <p><i>Polysaccharide isolated from Tamarindus indica seed kernel (PST001) was used for green synthesis of gold nanoparticles. Nanoparticles with various size and shape were prepared for different applications such as targeted drug delivery and photothermal therapy. For the preparation of nanoparticle with sphere shape 10mg/ml PST001 was mixed with various concentration of auric chloride such as 5mM, 2.5mM, 1mM and 0.5mM in the presence of 1M NaOH at 37°C with constant stirring in a magnetic stirrer (500rpm) at 37°C, which were analyzed by UV-Visible spectroscopy. Nanoparticles with rod shape were prepared using CTAB method and confirmed by absorption at 620nm in UV-Visible spectroscopy. Detailed studies are proceeding.</i></p>
33	<p>Guruvayoorappan C. Mitigation of radiation induced esophagitis by Pyrazole (1,2, Diazole) from <i>Rhizophora apiculata</i> and its potential application as an effective radioprotector. Science and Engineering Research Board, Dept. of Science and Technology, Govt. of India. (Ongoing).</p> <p><i>Phase I study and Phase II study shows that Pyrazole (1,2, Diazole) from Rhizophora apiculata could significantly inhibit experimental esophagitis in experimental animal models as evidenced by tissue morphology and histopathology results. Mechanism of action behind this activity is under current investigation.</i></p>
34	<p>Guruvayoorappan C. Significant use of foldscope as a potential bench side research tool for in vitro cytotoxicity and cell morphology studies and tumour cell apoptosis and its large scale application in cancer research. Dept. of Biotechnology, Govt. of India. (Ongoing).</p> <p><i>Foldscope is an origami based microscope which was used to study the effect of a battery of compounds on in vitro cytotoxicity and apoptosis in cancer cell lines.</i></p>
35	<p>Guruvayoorappan C. Targetting inflammatory mediators at the transcriptional level and protection of colon integrity during ulcerative colitis by umbelliferone. Kerala Biotechnology Commission, Govt of Kerala. (Ongoing).</p> <p><i>In the Phase I study it was observed that umbelliferone could significantly inhibit the progression of ulcerative colitis in experimental animals. Detailed investigation is under progress</i></p>

CANCER RESEARCH (Post-doctoral projects)	
36	<p>Sheeja K (BioCare -Women scientist Scheme). Analysis of the therapeutic potential of α- mangostin and Garcinone E from Mangosteen against oral cancer metastasis. Dept. of Biotechnology, Govt. of India. (Completed).</p> <p><i>α-Mangostin is the major component of mangostin fruit. Another important xanthone derive present in the mangosteen fruit is Garcinone E. In the present study we have analysed the effect of Garcinone E on various steps of metastasis of oral cancer cell line HSC-4. The results revealed that Garcinone E could inhibit the migration and invasion of HSC-4 cells by inhibiting MMP-2 and MMP-9. Additionally, Garcinone E significantly inhibited the production of proinflammatory cytokine IL-1β, indicates its anti-inflammatory effect on cancer cells. This observation leads to perform the bioinformatics analysis of Garcinone E with the inflammatory regulatory protein, NLRP3 to validate the in vitro results. Molecular studies are in progress to reveal the exact mechanism of action of Garcinone E on NLRP3 inflammsome in oral cancer.</i></p>
37	<p>Reshma PL (KBC Post-Doctoral fellow). Paclitaxel loaded polysaccharide-nanoconjugates to overcome drug resistance in cancer cells. Kerala Biotechnology Commission, Govt. of Kerala. (Completed).</p> <p><i>To increase the solubility and bioavailability of Paclitaxel two polysaccharide (PST001) Paclitaxel nanoconjugates were prepared (PST-PTX-1 and PST-PTX-2). Expression of multi-drug resistance proteins were evaluated in 4T1 cells and nanoparticle treatment was able to reduce the expression of drug efflux pumps PGP and BCRP when compared to parent drug (Paclitaxel). PST-PTX2 nanoparticle could overcome multi-drug resistance which was further confirmed by the expression of drug efflux pumps P-gp and BCRP. Therefore, PST-PTX-2 may be effective in causing cell death and thus overcome multi drug resistance by either decreasing the expression of drug efflux pumps P-gp or BCRP or by by-passing the drug efflux pumps.</i></p>
38	<p>Rasmi RR (KBC Post-Doctoral fellow). Investigation of the ameliorative effect of 1,2 diazole on radiation induced lung injury and understanding its possible mechanism of action. Kerala Biotechnology Commission, (KSCSTE), Govt. of Kerala. (Completed).</p> <p><i>The study shows that 1,2, diazole could significantly inhibit radiation induced lung injury by targeting inflammatory mediators</i></p>
39	<p>Sreeja Purushothaman. <i>In vitro</i> assessment of the anti-cancer property of Amalaki Rasayanam in triple negative breast cancer and delineation of its molecular mechanism of action. Kerala State Council for Science, Technology & Environment, Govt. of Kerala. (Ongoing).</p> <p><i>One of the important rasayana preparations in Ayurveda, known as Amalaki rasayana(AR) is being evaluated in Triple Negative Breast Cancer (TNBC) Cell line. Antimetastatic effect of AR was confirmed by transwell migration as well as by invasion assays. Downregulation of MMP2, MMP9 and N-cadherin transcripts and an upregulation of E-cadherin transcripts was observed in AR treated samples. AR treatment significantly down regulated the nuclear trans location as well as DNA binding activity of NF kB. Inhibition of NF kB activation mediated by AR reversed EMT gene expression and reduced metastatic potential of TNBC cells.</i></p>
40	<p>Vineetha M. Cytogenetic and molecular studies in adult acute lymphoblastic leukemia. Kerala State Council for Science, Technology & Environment, Govt. of Kerala. (Ongoing).</p> <p><i>The identification of cytogenetic and molecular abnormalities offers prognostic information regarding the markers for therapy and targets for drug development, and pathobiologic insights In ALL patients. The main objectives of the study are To identify the cytogenetic and molecular abnormalities associated with ALL targeting mutations in IKZF1, NOTCH-1, CRLF2, Ras signaling and Janus kinases, to evaluate the effect of combination of imatinib and dasatinib through in vitro cell culture study (MOLT-4) and also in the primary cells isolated from patient samples.</i></p>
41	<p>Syama HR. NPDP Antitumor and antimicrobial properties of polysaccharide-silver nanoparticles for biomedical applications. Science and Engineering Research Board, Dept. of Science and Technology, Govt. of India. (Ongoing).</p> <p><i>The present study showed that polysaccharide PSP001 coated silver nanoparticles (PSP-SNP) was found to be biocompatible and non-toxic. Cytotoxicity of PSP-SNP by MTT assay and live-dead staining using AO/EtBr staining supported apoptosis. Hoechst 33342 staining revealed the effect of these nanoparticles in condensing tumor cell nuclei. PSP-SNP also possesses potential antimicrobial properties against S. aureus, C. albicans and C. krusei which were the key organisms behind wound healing. The in-vivo study also confirmed the wound healing potential of PSP-SNP. The in-vivo anti-tumour activity needs to be further explored.</i></p>
COMMUNITY ONCOLOGY	
42	<p>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. International Agency for Research on Cancer, Lyon, France & Bill Gates Foundation. (Completed).</p>

43	Ramani S.Wesley. Cervical cancer screening using VIA, VILI for women in the control area of Trivandrum breast cancer screening project. International Agency for Research on Cancer, Lyon, France. (Completed).
NATURAL BACKGROUND RADIATION CANCER REGISTRY	
44	Paul Sebastian (till 24th August 2018). Rekha A. Nair (from 15th October 2018). India- Japan co-operative research programmes on health effects of natural radiation in Karunagappally, Kerala. Health Research Foundation, Japan. (Ongoing). <i>The project is continuing with the aim of estimating the health effects of natural radiation in High Background Radiation area (HBRA) Karunagappally, Kerala. Studies concentrating mainly on cancer, Non-cancerous diseases, dose measurements and biological parameters covering the cohort of 4 lakhs population.</i>
45	Jayalekshmi P. Radiation Epidemiologic studies, Karunagapally, Kerala, India. Health Research Foundation, Japan. (Ongoing). <i>Follow up of the residents of HBRA. Migration, Mortality and Cancer Incidence survey undertaken covering 4 lakhs population periodically.</i>
46	Paul Sebastian (till 24th August 2018). Rekha A. Nair (from 15th October 2018). Prevalence of cataract in HBRA, Karunagappally. Health Research Foundation, Japan. (Ongoing). <i>The project aims to evaluate the prevalence of cataract and lens opacity among the residents of high and low background area. 900 females have undergone eye examinations using slit lamp by ophthalmologist and analysis is ongoing.</i>
47	Paul Sebastian (till 24th August 2018). Rekha A. Nair (from 15th October 2018). Prevalence of Atherosclerosis in HBRA, Karunagappally. Health Research Foundation, Japan. (Ongoing). <i>The project evaluates the prevalence of atherosclerosis among the residents. Data collection CAVI, IMT measurements and biochemical investigations completed. Data processing and analysis ongoing.</i>
48	Paul Sebastian (till 24th August 2018). Rekha A. Nair (from 15th October 2018). District Cancer Registry. Indian Council of Medical Research, Govt. of India. (Ongoing). <i>District Cancer Registry supported by NCDIR, ICMR provides incidence and pattern of cancer in Kollam District. 3722 incident cancer cases & 1534 cancer mortality cases were registered during 2018. The major sites among males were lung and prostate and among females breast and thyroid.</i>
49	Rekha A. Nair (from 15th October 2018). Population Based Survival Studies of Head and Neck, Breast & Cervix cancers in Kollam District, Kerala. Indian Council of Medical Research, Govt. of India. (Ongoing). <i>The study aims to estimate the survival rates of the cases registered with the above sites during 2012 to 2016 in District Cancer Registry. The survival information collection for estimating survival probabilities was undertaken during the reporting period.</i>
50	Sreekumar A. Thyroid nodularities in HBRA. Health Research Foundation, Japan. (Ongoing). <i>Thyroid nodularity prevalence estimated in the HBRA area residents. Analysis undertaken and results under publication.</i>
51	Hariharan S. Cytogenetic studies on the effects of chronic low level radiation in the residents of high background radiation areas (HBRA) in Kerala, India. Health Research Foundation, Japan. (Ongoing). <i>Cytogenetic studies were undertaken to estimate the translocations of chromosomes among high background radiation area (HBRA) residents. Molecular signature of thyroid cancers was also undertaken.</i>
RADIATION PHYSICS	
52	Thayal Singh Elias. Design and development of indigenous integrated brachytherapy simulator for cancer treatment. Dept. of Science and Technology, Govt. of India. (Ongoing).
53	Shajju VS. Design and fabrication of a head phantom for dosimetric verification of radiotherapy treatment plans. Kerala State Council for Science, Technology & Environment, Govt. of Kerala. (Ongoing). <i>The Ph.D. research work is progressing and a prototype head phantom is fabricated. The phantom material used for this prototype is PMMA (Polymethyl Methacrylate). The fabrication is done on a CNC (Computer Numerical Control) machine with high precision.</i>

OTHER FUNDED PROJECTS

Sl. No.	Principal Investigator. Project Title. Funded by. (Status.)
CANCER EPIDEMIOLOGY	
1	Kalavathy MC. Pap-smear screening programme among women attending peripheral cancer detection campaigns in Thiruvananthapuram. Thiruvananthapuram Corporation, Jilla Panchayats & NGOs. (Ongoing).
2	Kalavathy MC. Pap-smear screening programme among women with gynecological problems reported in a hospital. Thiruvananthapuram Corporation & Panchayats. (Ongoing).
COMMUNITY ONCOLOGY	
3	Jayakrishnan R. Tobacco and alcohol use among adolescent group of Model Residential Schools (MRS) of Kerala. ST Development Department, Govt. of Kerala. (Ongoing).
NATURAL BACKGROUND RADIATION CANCER REGISTRY	
4	Jayalekshmi P. Prevention & cancer control projects – 7 Nos. Grama, Block Panchayats, Karunagappally, Kollam & Muthukulam Block Panchayat & Chettikulangara Panchayat. (Ongoing). <i>5932 subjects underwent cancer detection in the rural areas of Kollam district. Awareness classes were also undertaken which benefitted in motivating the people for early detection and inducing life style changes.</i>

PHARMA/INDUSTRY SPONSORED

Sl. No.	Principal Investigator. Project Title. Funded by. (Status.)
BREAST	
1	Beela Sarah Mathew. ALTTO (Adjuvant Lapatinib and/or Trastuzumab Treatment Optimisation) study. A randomised, multi-centre, open-label, phase III study of adjuvant lapatinib, trastuzumab, their sequence and their combination in patients with HER2/ErbB2 positive primary breast cancer. Glaxo Smith Kline. (Ongoing). <i>9 patients randomized, 7 patients are on follow up and 2 patients died</i>
CHEST & GASTRO-INTESTINAL	
2	Sajeed A. Aspirin for Dukes C and High Risk Dukes B colorectal cancers: An international, multi-centre, double blind, randomised placebo controlled Phase III trial. Singapore Clinical Research Institute. (Ongoing). <i>15 patients enrolled.</i>
3	Sivanandan CD. A Phase II/III Pivotal, Open-label, Randomized, 3 Arm Study to Assess the Efficacy of LNP3794 Monotherapy or in Combination with Docetaxel, Compared with Docetaxel Alone, in Patients with RAS Mutation Positive Locally Advanced and Metastatic Non-Small Cell Lung Cancer. Lupin Ltd. (Closed out. One patient screened – screen failure).
GYNAEC & GENITO-URINARY	
4	Francis V. James. A single arm, multicentric, open label, efficacy and safety study of Docetaxel Lipid Suspension for Injection of Intas Pharmaceuticals Limited, India in Patients with metastatic castration resistant prostate cancer. Lambda Therapeutic Research Limited. (Ongoing).
5	Aswin Kumar. Multicentre, randomized, open label, active-controlled, 2 parallel groups, phase 3 study to compare efficacy and safety masitinib at 7.5 mg/kg/day to dacarbazine in the treatment of patients with non resectable or metastatic stage 3 or 4 melanoma carrying a mutation in the juxta membrane domain of c-kit. AB Science. (Ongoing).
6	Aswin Kumar. A prospective, multicenter; randomized, double blind, placebo-controlled, 2-parallel groups, phase 3 study to compare the efficacy and safety of masitinib in combination with docetaxel to placebo in combination with docetaxel in first line metastatic Castrate Resistant Prostate Cancer (mCRPC). AB Sciences. (Ongoing).
Haematological, Lymphoreticular, Bone & Soft tissue	
7	Geetha N. A phase II study of dasatinib therapy in children and adolescents with newly diagnosed chronic phase chronic myelogenous leukaemia or with Ph+ leukaemias resistant or intolerant to imatinib. Bristol Myers Squibb. (Ongoing).

8	Sreejith Nair: A randomized, controlled, double-blind phase III trial to compare the efficacy, safety and pharmacokinetics of GP2013 plus cyclophosphamide, vincristine and prednisone vs. MabThera® plus cyclophosphamide, vincristine, prednisone, followed by GP2013 or MabThera® maintenance therapy in patients with previously untreated, advanced stage follicular lymphoma. Novartis. (Ongoing).
9	Anoop TM. A randomized, open-label, phase III study of abemaciclib combined with standard adjuvant endocrine therapy versus standard adjuvant endocrine therapy alone in patients with high risk, node positive, early stage, hormone receptor positive, human epidermal receptor 2 negative, breast cancer. I3Y-MC-JPC. Eli Lilly. (Ongoing).
10	Rona Joseph P. A randomized, open-label, phase 3 study of abemaciclib combined with standard adjuvant endocrine therapy versus standard adjuvant endocrine therapy alone in patients with high risk, node positive, early stage, hormone receptor positive, human epidermal receptor 2 negative, breast cancer. I3Y-MC-JPCF. Eli Lilly. (Ongoing).

HEAD & NECK

11	Rejnish Kumar R. A phase III, open label, randomised, multi-centre study of the effects of leukocyte interleukin injection [Multikine] plus standard of care (surgery + radiotherapy or surgery + concurrent chemoradiotherapy) in subjects with advanced primary squamous cell carcinoma of oral cavity/soft palate versus standard of care only. Cell Science. (Partial closure done, Awaiting close down).
----	---

IN-HOUSE PROJECTS

Sl. No.	Principal Investigator: Project Title. (Status.)
ANAESTHESIOLOGY	
1	Rachel Cherian Koshy. Assessment of analgesic efficacy of bilateral superficial cervical block for thyroid surgeries under general anaesthesia. (Completed).
2	Rachel Cherian Koshy. Comparison of ease of endotracheal intubation and laryngeal view between sniffing and ramped positions: a prospective observational study. (Ongoing).
3	Rachel Cherian Koshy. Simulation based study to evaluate the efficiency of an improvised video laryngoscope compared to C-MAC D Blade Video laryngoscope. (Ongoing).
4	Mary Thomas. Performance in 6mwt for predicting postoperative pulmonary complications at a tertiary care hospital. (Completed).
5	Mary Thomas. Pre-operative shuttle walk test for morbidity and mortality prediction in elective major colorectal surgery. (Ongoing).
6	Venugopal A. Effects of intravenous dexmedetomidine on perioperative haemodynamics and quality of emergence in patients undergoing head and neck surgery following general anaesthesia: A comparative randomized double blind placebo controlled study. (Ongoing).
7	Venugopal A. A comparison of pharyngolaryngeal morbidity following supraglottic airway insertion after the administration of betamethasone gel or lidocaine jelly: an observational study. (Ongoing).
8	Venugopal A. Direct laryngoscopy versus video laryngoscopy for nasotracheal intubation in head & neck surgery: A prospective observational study. (Ongoing).
9	Viji S. Pillai. Safety and postoperative analgesic efficacy of posterior TAP block for lower abdominal gynaecological surgeries. (Completed).
10	Viji S. Pillai. Comparison of nebulized lignocaine and nebulized ketamine in attenuating stress response to intubation and in reducing the incidence of postoperative sore throat. (Completed).
11	Sudha P. Intervenus and intratracheal lignocaine on airway and hemodynamic response during emergence and extubation following general anaesthesia. (Ongoing).
12	Sudha P. A prospective observational study on the predictability of postoperative nausea and vomiting in patients undergoing oncosurgeries under general anaesthesia. (Ongoing).

Ongoing Research Projects

13	Bhagyalekshmi R. A randomized control trial to compare analgesic efficacy of continuous technique erector spinae plane block with paravertebral block for breast surgeries. (Completed).
14	Bhagyalekshmi R. Direct laryngoscopy Vs videolaryngoscopy for nasotracheal intubation in head and neck surgery: a prospective observational study. (Completed).
15	Subha R. Effect of BIS monitoring on sevoflurane consumption in patients undergoing breast cancer surgeries under general anaesthesia. (Ongoing).
16	Subha R. A survey on post graduate medical education (Anaesthesiology) in India. (Completed).
17	Rajasree O. Comparison of Shikani optical stylet with McCoy laryngoscope: A simulation study. (Ongoing).
18	Rajasree O. Intravenous and intrathecal lignocaine on airway and hemodynamic response during emergence and extubation following general anaesthesia. (Ongoing).
19	Rajasree O. A Prospective study among patients to estimate the prevalence of chronic post-surgical pain (CPSP). (Ongoing).
20	Rajasree O. Evaluation of intubation techniques using Shikani optical stylet: A simulation study. (Ongoing).
21	Frenny Ann Philip. Role of preoperative risk stratification in predicting postoperative outcomes in cancer patients undergoing surgery: A prospective cohort study. (Ongoing).
22	Frenny Ann Philip. Role of metabolic syndrome as a predictor of perioperative morbidity in major oncosurgery: A prospective analysis. (Ongoing).
23	Frenny Ann Philip. Comparison of ease of endotracheal intubation and laryngeal view between "sniffing" and "ramped" positions- a prospective observational study. (Ongoing).
24	Radhika Devi B. Randomised control trial to study the effect of Gowgates block on visibility of surgical field and hemodynamic response in patients with carcinoma tongue. (Ongoing).
25	Radhika Devi B. Validation of CCI in predicting comorbidity adjusted life expectancy in oral cancer. (Ongoing).
26	Radhika Devi B. Role of metabolic syndrome as a predictor of perioperative morbidity in major oncosurgery: A prospective analysis. (Ongoing).
27	Radhika Devi B. Ultrasonography: an effective tool in airway assessment: a pilot study. (Ongoing).
BREAST & CENTRAL NERVOUS SYSTEM	
28	Beela Sarah Mathew. Comparison of imaging modalities for the accurate delineation of arteriovenous malformations & evaluation of set up accuracy with reference to frameless stereotactic radiosurgery. (Completed/ Article under preparation).
29	Beela Sarah Mathew. Does addition of postmastectomy radiotherapy improve outcome of patients with pt I-2, N0 triple negative breast cancer as compared to breast conservation therapy?. (Completed/Submitted for publication).
30	Beela Sarah Mathew. Impact of subventricular zone (SVZ) irradiation on outcome of patients with glioblastoma multiforme. (Completed and Article published).
31	Beela Sarah Mathew. Outcomes of the treatment of stage I-III Her2 positive breast cancers at Regional Cancer Centre, Thiruvananthapuram. (Ongoing).
32	Beela Sarah Mathew. Results of curative hypofractionated radiotherapy for stage I-III breast cancer patients. (Completed and Article published).
33	Asha Arjunan. Clinical outcome of adjuvant radiotherapy in early stage breast cancer with 1 to 3 positive axillary lymph nodes: A single institution experience. (Completed/article under preparation).
34	Asha Arjunan. Observational analysis of clinical profile and treatment outcome of newly diagnosed GBM patients. (Completed/ article under preparation).
35	Rajeev KR. Evaluation of cardiac morbidity with adjuvant hypo fractionated radiotherapy and concurrent trastuzumab in patients with HER 2 positive stage I- III breast cancer. (Ongoing).
36	Rajeev KR. Treatment and outcome of male breast cancer: A retrospective analysis. (Ongoing).
37	Paul Augustine. Locoregional recurrence and survival outcome in patients with Carcinoma Breast. (Ongoing).

38	Paul Augustine. Efficiency of endofacial axillary lymphadenectomy in reducing axillary drain output among women with breast cancer undergoing breast conservation surgery in Regional Cancer Centre Thiruvananthapuram. (Ongoing).
39	Paul Augustine. Clinico-pathological profile and survival outcome among patients with bilateral breast cancers in a tertiary cancer care centre in Kerala. (Ongoing).
40	Paul Augustine. Expression of immunomodulatory molecule PDL-1 (Programmed death ligand-I) in triple negative invasive breast cancer: (Ongoing).
41	Paul Augustine. Skin Sparing mastectomy and immediate reconstruction, a retrospective analysis. (Ongoing).
42	Kurian Cherian. Comparison of clinicopathological characteristics and survival outcomes of patients with breast cancer who were diagnosed at or less than 40 years with that of more than 40 years. (Ongoing).
43	Rexeena Bhargavan. Role of locoregional treatment of the primary site in de novo oligometastatic breast cancer: A prospective observational study. (Ongoing).
44	Rexeena Bhargavan. Prevalence of androgen receptor positivity in breast cancer patients and its prognostic implications. (Ongoing).
45	Rexeena Bhargavan. Role of frailty in predicting postoperative outcomes in cancer surgeries. A prospective cohort study. (Ongoing).

CANCER EPIDEMIOLOGY

46	Aleyamma Mathew. The Impact of Socioeconomic Status (SES) on stage and survival of gastrointestinal cancer: A comparative study of Canada and South India. (Ongoing).
47	Aleyamma Mathew. Some generalized Weibull models and their applications in cancer research. (Ongoing).
48	Jagathnath Krishna KM. Joint frailty modeling of longitudinal time-to-event data in cancer survival. (Ongoing).
	<i>This comparative study represents a collaborative effort between investigators at the Regional Cancer Centre (RCC) in Thiruvananthapuram, India and Queen's University in Kingston, Canada. In this collaboration, the investigators will use cancer registry data to describe and compare the association between socioeconomic status (SES), stage of cancer, and survival in Kerala and Ontario. This proposed collaborative study will provide an opportunity to gain insights into how to improve cancer health system performance in Canada and South India.</i>

CHEST & GASTRO-INTESTINAL

49	Madhu Muralee. Predictive value of serum and molecular markers in assessing response to neoadjuvant treatment and short term outcome in adenocarcinoma of esophagogastric junction and stomach: Prospective observational Study. (Ongoing).
50	Mira Wagh. Multicentric case study of carcinogenic and non carcinogenic polycyclic aromatic hydrocarbons and its impact on lung cancer: Role of smoking and occupational exposure. (Ongoing).
51	Sivanandan CD. A retrospective analysis of clinical outcome in patients treated with short course radiotherapy followed by surgery for operable adenocarcinoma of rectum. (Ongoing).
52	Sivanandan CD. Dosimetric comparison of 3DCRT and IMRT in radical chemoradiotherapy of squamous cell carcinoma oesophagus. (Ongoing). 8 patients enrolled.
53	Sajeed A. Treatment response in patients undergoing stereotactic body radiotherapy in non small cell lung cancer: a single institutional prospective observational study. (Ongoing). 7 patients enrolled.
54	Roshni S. Prospective observational study of preoperative short course radiation followed by delayed surgery in operable and locally advanced adenocarcinoma rectum. (Ongoing). Enrolled 10 patients.
55	Arun Sankar. Prospective comparative study of dosimetric parameters in Three dimensional Vs Four dimensional CT image acquisition of carcinoma lung. (Completed). Enrolled 15 patients.

GYNAEC & GENITOURINARY

56	Francis V. James. Feasibility of implementing ICRU 89 recommendations in CT image based brachytherapy of cancer cervix. (Completed).
57	Francis V. James. Observational study of Inflammatory markers in Cancer of Uterine Cervix. (Completed).
58	Francis V. James. Prospective study of the level of Programmed death ligand I (PD-L1) expression in carcinoma cervix patients. (Ongoing).
59	Aswin Kumar. Role of PET-CT in staging and treatment planning of carcinoma cervix stage IIB-IIIB. (Ongoing).

60	Aswin Kumar:Assessment of the reproducibility of Bladder and Rectal doses with Bladder- Rectum Spacer Balloon [BRSB]Versus Vaginal Gauze Packing [VGP] in high dose rate image-guided brachytherapy for carcinoma cervix. (Ongoing).
61	Rema P. Life after exenteration: Quality of life assessment in patients after exenteration for gynaecological cancers. (Ongoing).
62	Rema P.Prospective study to evaluate the correlation between colposcopic scoring with histopathology in VIA positive patients. (Ongoing).
63	Rema P. Open radical hysterectomy for carcinoma cervix: survival outcome and morbidity.(Ongoing).
64	Rema P. Performance of colposcopic scoring by modified IFCPC terminology for diagnosing cervical intraepithelial neoplasia in a low resource setting. (Completed).
65	Rema P. Cure rate and complications after LEEP for preinvasive lesions of cervix. (Completed).
66	Rema P. Survival outcome and morbidity profile after interval cytoreductive surgery in advanced epithelial ovarian cancers. (Completed).
67	Rema P. Evaluation of circulating cell free DNA levels in predicting operability during interval cytoreduction for advanced ovarian cancers. (Ongoing).
68	Suchetha S. Validation study on feasibility of sentinel lymph node sampling in early carcinoma endometrium. (Completed).
69	Suchetha S. Survival outcome of patients undergoing lymphadenectomy as a part of surgical staging for cancer endometrium. Ongoing.
70	Suchetha S. Survival outcome in women with uterine sarcoma. (Completed).
HAEMATOLOGICAL & LYMPHORETICULAR	
71	Geetha N. A prospective study of Revised International Staging system (R-ISS) in multiple myeloma and its prognostic significance. (Ongoing).
72	Geetha N. Serum Cystatin C as prognostic marker in multiple myeloma. (Ongoing).
73	Geetha N. Estimation of Plasma Epstein Barr virus DNA in patients with Hodgkin's lymphoma and its correlation with treatment response. (Ongoing).
74	Sreejith Nair: Prognostic significance of beta 2 microglobulin and absolute lymphocyte monocyte ratio in patients with DLBCL treated with RCHOP. (Ongoing)..
75	Sreejith Nair: A prospective study to evaluate association between normalization of free light chains and outcome in patients with multiple myeloma. (Ongoing).
76	Sreejith Nair: A prospective observational study to correlate the association of neutrophil lymphocyte ratio and treatment response in patients with multiple myeloma. (Ongoing).
77	Prakash NP. Clinical spectrum and outcome of carbapenem resistant infections in patients with acute leukaemia. (Ongoing).
78	Prakash NP. An observational study to evaluate the efficacy of escalated dose of imatinib or a second line tyrosine kinase inhibitor in chronic myeloid leukaemia patients showing treatment failure to standard dose imatinib. (Ongoing).
79	Prakash NP. Role of inflammatory markers in predicting response to treatment in patients with non metastatic osteosarcoma-a prospective observational study. (Ongoing).
HEAD & NECK	
80	Rejnish Kumar R. Dosimetric evaluation of increasing number of arcs in head and neck IMRT-a prospective observational study. (Ongoing).
81	Kainickal CT. Clinical profiles and treatment outcomes of patients treated with induction chemotherapy for locally advanced carcinoma of oral tongue: a retrospective analysis. (Ongoing).
82	Kainickal CT. Clinical profile and treatment outcomes of carcinoma buccal mucosa: retrospective analysis. (Ongoing).
83	Kainickal CT. Clinical outcomes of locally advanced Ca Larynx treated with definitive chemo-RT/RT-a retrospective analysis. (Ongoing).
84	Malu Rafi. Dosimetric impact of neoadjuvant chemotherapy in locally advanced carcinoma nasopharynx treated with IMRT technique. (Ongoing).

85	Malu Rafi. Treatment outcomes of carcinoma of the parotid gland-a single institution experience. (Ongoing).
86	Malu Rafi. Single Institution experience of treating MUO neck-a retrospective study. (Ongoing).
87	Elizabeth Mathew Iype. Ten year survival of patients with well differentiated thyroid cancers: A retrospective analysis. (Ongoing).
88	Elizabeth Mathew Iype. Treatment outcomes of transoral microlaryngeal CO ₂ LASER surgery Vs radiation therapy for early glottic carcinoma. (Completed).
PAEDIATRIC ONCOLOGY	
89	Priyakumari T. Long term adverse effects of imatinib in children with chronic myeloid leukaemia. (Ongoing).
90	Priyakumari T. Blood stream infections in children with central venous catheter on chemotherapy: A prospective observational study. (Ongoing)..
91	Priyakumari T. Serum immunoglobulin levels in children of acute lymphoblastic leukaemia during maintenance chemotherapy and its correlation with intensity of treatment and infection. (Ongoing).
92	Priyakumari T. Cardio-metabolic complications in long term survivors of childhood leukaemia. (Ongoing).
93	Priyakumari T. Evaluation of toxicity profile of high dose methotrexate therapy in childhood acute lymphoblastic leukemia. (Ongoing).
94	Priyakumari T. The dynamics of Anti-HBs titre in children during maintenance phase chemotherapy for acute lymphoblastic leukemia. (Ongoing).
PATHOLOGY	
95	Jayasree K. Mesenchymal chondrosarcoma: A retrospective study. (Ongoing).
96	Jayasree K. Primary bone tumours of maxilla and mandible. (Ongoing).
97	Jayasree K. Skull bone tumours: A seven year retrospective study in tertiary care centre. (Ongoing).
98	Jayasree K. Clinical characteristics and treatment outcome of Ewing's sarcoma in adolescents and adults: Retrospective study. (Ongoing).
99	Anitha Mathews. Comparison of expression pattern of HR and HER2/neu protein in primary breast carcinoma and synchronous LN metastasis. (Ongoing).
100	Nileena Nayak. Diagnostic accuracy of FNAC and core needle biopsy in breast carcinoma. (Completed).
101	Preethi TR. Prospective study of the level of Programmed cell death ligand 1 (PD- L1) expression in locally advanced cervical cancer patients. (Ongoing).
102	Anila KR. An audit of sinonasal malignancies with clinicopathological correlation and an attempt to re-classify poorly differentiated carcinomas based on proposed newer entities. (Ongoing).
103	Anila KR. Prevalence of BRAF, RAS, RET/PTC and PTEN proto-oncogene mutations in recurrent and aggressive thyroid cancers. (Ongoing).
104	Anila KR. Utility of fascin over-expression as a marker of aggressiveness in squamous cell carcinoma of tongue. (Ongoing).
105	Priya Mary Jacob. Determination of polycyclic aromatic hydrocarbons in lung cancer tissue using a modified QuEChERS extraction and SPE method by GC-MS/MS. (Ongoing).
106	Jayasudha AV. Prognostic significance of double-expresser status in diffuse large B-cell lymphoma. (Ongoing).
107	Neelima Radhakrishnan. Utility of frozen section in the assessment of margins and its impact on local recurrence in squamous cell carcinoma of tongue. (Ongoing).
RADIODIAGNOSIS	
108	Jiji V. Unearthing contralateral breast malignancy: Screening mammography as a tool. (Ongoing).
109	Anitha Sen. Wide windowing of CT brain reporting: usefulness in extra-axial non-traumatic pathologies. (Completed).
110	Anitha Sen. CT density of normal cervical thymus in comparison with mediastinal thymus. (Completed).

PUBLICATIONS

Journal Articles

1	Anila KR, Anitha M, Varghese BT, Jayasree K. 'Papillary carcinoma thyroid serving as recipient tumor to carcinoma breast: a rare example of tumor-to-tumor metastasis'. <i>Indian Journal of Pathology and Microbiology.</i> 2019/62(1): 122-4.
2	Anila KR, George NA, Kumar RR, Sreekumar A, Jayasree K. 'Sclerosing mucoepidermoid carcinoma with eosinophilia of thyroid gland: not so indolent a neoplasm?'. <i>Indian Journal of Pathology and Microbiology.</i> 2018/61(2): 242-4.
3	Anila KR, Kainickal CT, Koshy SM, Nair SP. 'Head and neck squamous cell carcinoma metastasizing femur: pathological confirmation of a rare site of metastasis of a common cancer'. <i>Medical Journal of Dr. DY Patil Vidyapeeth.</i> 2019/12(1): 75-7.
4	Anila KR, Mathews A, Augustine P, Krithika E, Jayasree K. 'Tubulocystic renal cell carcinoma: an entity related to papillary renal cell carcinoma?'. <i>Medical Journal of Dr. DY Patil Vidyapeeth.</i> 2018/11(4): 332-4.
5	Anila KR, Nayak N, Venugopal M, Jayasree K. 'Role of rapid on-site evaluation in CT guided fine needle aspiration cytology of lung nodules'. <i>Journal of Cytology.</i> 2018/35(4): 229-32.
6	Anju AA, Nair SG, Benson R, Jayasudha AV. 'Primary splenic follicular lymphoma treated with splenectomy and adjuvant chemotherapy: a case report'. <i>Iraqi Journal of Hematology.</i> 2018/7(2): 90-2.
7	Anju AA, Vishnu H, Mathews A, Nair SG, Sugeeth MT, Benson R. 'Phosphaturic mesenchymal tumour of the sinonasal area presenting as oncogenic osteomalacia: a rare presentation'. <i>Scholars Journal of Medical Case Reports.</i> 2018/6(12): 1071-3.
8	Augustine P, Ramesh SA, Ramachandran K, Sukumaran R, Jose R, Cherian K, Muralee M, Ahamed MI. 'Nipple areola complex involvement in invasive carcinoma breast'. <i>Indian Journal of Surgical Oncology.</i> 2018/9(3): 343-8.
9	Babu G, Azariah B, Nair SP, James FV. 'Malignant melanoma metastasizing to tonsil: a rare presentation'. <i>Journal of Cancer Research and Therapeutics.</i> 2018/14(10): 815-7.
10	Balachandran H, Sajeed A, Nair SP, Nair SS. 'Rare case of metastatic gall bladder neuroendocrine carcinoma: a case report'. <i>Journal of Medical Science and Clinical Research.</i> 2019/7(3): 895-8.
11	Basha MM, Jayasree K, Kusumakumary P, Geetha N, Mathews A, Somanathan T. 'Osteosarcoma of extragnathic skull bones: clinicopathological profile of eight cases'. <i>Journal of Bone and Soft Tissue Tumors.</i> 2018/4(2): 11-3.
12	Bharath VM, Balagopal PG, George NA, Jayasudha AV, Ahamed MI, Sebastian P. 'Can metastatic lymph node ratio be used as an independent prognostic factor in carcinoma tongue'. <i>Gulf Journal of Oncology.</i> 2018/1(28): 6-10.
13	Bhargavan VR, Augustine P. 'Superficial incisional surgical site infections in emergency surgery in cancer patients: a tertiary cancer care centre experience'. <i>Indian Journal of Cancer.</i> 2018/55(2): 154-6.
14	Bhattacharya T, Babu G, Kainickal CT. 'Current role of chemotherapy in nonmetastatic nasopharyngeal Cancer'. <i>Journal of Oncology.</i> 2018/1(1): Article ID: 3725837.
15	Bhattacharya T, Kainickal CT. 'Current status of organ preservation in carcinoma larynx'. <i>World Journal of Oncology.</i> 2018/9(2): 39-45.
16	Binitha R, Reghu KS, Guruprasad CS, Nair M, Priyakumari T, Kusumakumary P. 'Infections during induction chemotherapy in children with acute lymphoblastic leukemia – profile and outcomes: experience from a cancer center in South India'. <i>Indian Journal of Medical and Paediatric Oncology.</i> 2018/39(2): 188-92.
17	Chandar R, Gopakumar KG, Appanraj P, Priyakumari T. 'Pulmonary cavitation, odontoid lytic lesion, and B symptoms: early suspicion of the fine line between Hodgkin lymphoma and tuberculosis'. <i>Pediatric Blood and Cancer.</i> 2018/65(11): Article ID: e27355.
18	Chandar R, Seetharam S, Gopakumar KG, Appanraj P, Guruprasad CS, Binitha R, Nair M, Priyakumari T. 'Paraneoplastic demyelinating sensorimotor neuropathy delaying the diagnosis of an underlying acute lymphoblastic leukemia in a child'. <i>Journal of Oncology Practice.</i> 2018/14(10): 629-31.
19	Chandramohan K, Pradhan T, Nair SA. 'Identification and quantification of drug-resistant cells in colorectal tumor and distal margin'. <i>Indian journal of Surgical Oncology.</i> 2018/9(2): 141-5.
20	Chandramohan K, Thomas B. 'Cancer trends and burden in India'. <i>Lancet Oncology.</i> 2018/19(12): Article ID: e662.
21	Dhillon PK, Mathur P, Nandakumar A, Fitzmaurice C, Mehrotra R, Jayalekshmi P, Mathew A, Sebastian P. 'The burden of cancers and their variations across the states of India: the Global Burden of Disease Study 1990-2016'. <i>Lancet Oncology.</i> 2018/19(10): 1289-306.
22	Geetha N, Haridas L, Lali VS. 'Cytomegalovirus retinitis occurring as a complication of HyperCVAD chemotherapy: report of two cases'. <i>Indian Journal of Medical and Paediatric Oncology.</i> 2018/39(4): 548-50.

23	George PS, Mathew A, Krishna JKM. 'Transition in incidence and age at diagnosis of tobacco related cancers in South India'. Asian Pacific Journal of Health Sciences. 2018/5(4): 164-8.
24	Gopakumar KG, Binitha R, Chandar R, Ramachandran K, Priyakumari T. 'Spontaneous intramedullary hematoma and leukemic deposit in spinal cord causing acute onset paraplegia in a child with acute lymphoblastic leukemia'. Pediatric Blood and Cancer. 2018/65(8): Article ID: e27075.
25	Gopakumar KG, Mohan N, Prasanth VR, Ajayakumar MK. 'Isolated parapharyngeal cold abscess in a 9 year old boy'. Paediatrics and International Child Health. 2019/39(2): 139-41.
26	Gopakumar KG, Seetharam S, Krishna JKM, Nair M, Binitha R, Guruprasad CS, Prasanth VR, Priyakumari T. 'Risk-based management strategy and outcomes of tumor lysis syndrome in children with leukemia/lymphoma: analysis from a resource-limited setting'. Pediatric Blood and Cancer. 2018/65(12): Article ID: e27401.
27	Gopalakrishnan Z, Nair RK, Kumar RP, Menon S, Saju B. 'Verification of treatment planning algorithms using optically stimulated luminescent dosimeters in a breast phantom'. Journal of Medical Physics. 2018/43(4): 264-9.
28	Gopan G, Vishnu H, Nair SG, Sugeeth MT, Benson R. 'Ig D myeloma presenting as cauda equina syndrome in a young patient: a rare presentation'. Scholars Journal of Medical Case Reports. 2018/6(12): 1068-70.
29	Hally T, Gladston DV, Koshy RC. 'Extraoral approach of infraorbital nerve block for inferior partial maxillectomy as an adjunct to general anaesthesia'. Journal of Clinical Anesthesia. 2019/52(1): 33.
30	Haridas L, Geetha N, Nair SG. 'Prospective study of DCEP chemotherapy in patients with relapsed or refractory multiple myeloma'. Scholars Journal of Applied Medical Sciences. 2018/6(12): 4704-9.
31	Iype EM, Rajan B, Lakshmi S, Jissa VT, Singh R, Jayasree K. 'Cyclooxygenase-2 expression in squamous cell carcinoma of larynx: association with clinico-pathological factors and treatment outcomes'. International Journal of Otorhinolaryngology and Head and Neck Surgery. 2018/4(4): 970-6.
32	Jacob PM, Nair RA, Jayasudha AV, Nayak N, Sukumaran R, Nair SG, Koshy SM. 'Body cavity fluid flow cytometry in the diagnosis of haematolymphoid neoplasms'. Journal of Medical Science and Clinical Research. 2018/6(9): 418-24.
33	Janardhan D, Thomas S, Tiwari VK, Sunilkumar T. 'Laryngotracheal invasive thyroid cancer management'. Journal of Otolaryngology-ENT Research. 2018/7(3): Article ID:00208.
34	Janardhan D, Thomas S, Varghese BT, Suresh S, Patil S. 'Reconstruction plating in oncological arch mandibular resections revisited with technical modifications'. International Journal of Dental and Medical Sciences Research (IJOMSR). 2018/2(12): 19-24.
35	Janardhan D, Varghese BT, Iype EM, Thomas S. 'End stoma fashioning techniques and outcome in laryngectomies'. IOSR Journal of Dental and Medical Sciences. 2018/17(12): 76-9.
36	Janardhan D, Varghese BT, Kumar S. 'Salvage hemilaryngectomy for radiorecurrent laryngeal carcinoma in an elderly patient'. Journal of Otolaryngology-ENT Research. 2019/11(1): 1-3.
37	Janardhan D, Varghese BT. 'Thyrolingual trunk: significance in head and neck surgery'. Journal of Otolaryngology-ENT Research. 2018/10(6): 397-8.
38	Jayakrishnan R, Sebastian P, Kalavathy MC, Thomas S. 'Women empowerment for cancer prevention and control: lessons from Kerala State'. Indian Journal of Community Health. 2018/30(4): 407-10.
39	John ER, Mathew AP, Suchetha S, Ranjith S, Preethi TR, Rema P. 'Ovarian transposition in a young girl with primitive neuroectodermal tumor of bladder'. Indian Journal of Surgical Oncology. 2018/9(3): 432-5.
40	John ER, Rema P, Ranjith S, Nath AG, Vijayashanti, Suchetha S. 'Cervical rhabdomyosarcoma with prolapse in a young girl'. Indian Journal of Gynecologic Oncology. 2018/16(4): Article ID: 65.
41	Koshy RC, Hally T. 'Superficial cervical plexus block for urgent tracheostomy'. Indian Journal of Anaesthesia. 2019/63(1) : 65-6.
42	Krishnachandran R, Geetha N, Sakthivel KM, Aswathy CG, Nath PG, Krishna JKM, Hariharan S. 'Prognostic implications of derivative chromosome 9 deletions in patients with advanced-stage chronic myelogenous leukemia'. Journal of Environmental Pathology, Toxicology and Oncology. 2018/37(2): 117-26.
43	Krishnachandran R, Geetha N, Sakthivel KM, Aswathy CG, Nath PG, Priya G, Krishna JKM, Hariharan S, Raj A. 'Genomic amplification of BCR-ABL1 fusion gene and its impact on the disease progression mechanism in patients with chronic myelogenous leukemia'. Gene. 2019/686: 85-91.
44	Kumar NP, Kumar A, Jayaprakash PG, Kumar RP, James FV. 'Dosimetric comparison of bladder, rectal and vaginal surface doses between ovoids and cylinder based vaginal brachytherapy in carcinoma of the endometrium'. Journal of Cancer Research and Therapeutics. 2018/14(6): 1191-5.

45	Lankadasari MB, Aparna JS, Mohammed S, James S, Aoki K, Binu VS, Nair SP , Harikumar KB. 'Targeting SIPRI/STAT3 loop abrogates desmoplasia and chemosensitizes pancreatic cancer to gemcitabine'. <i>Theranostics</i> . 2018/8(14): 3824-40.
46	Majeed FBA, Ranjith S, Thomas S . 'Sebaceous carcinoma of thigh'. <i>Kerala Surgical Journal</i> . 2018/25(2): 88-90.
47	Manju B, Koshy CM, Ismail SM, Rajasree O, Koshy RC . 'Massive lymphedema necessitating disarticulation of shoulder joint following treatment for carcinoma breast'. <i>Indian Journal of Palliative Care</i> . 2018/24(3): 378-80.
48	Mathew A, George PS, Krishna JKM, Vasudevan D, James FV . 'Transition of cancer in populations in India'. <i>Cancer Epidemiology</i> . 2019/58: 111-20.
49	Mathew BS , Kallyyath SB, Krishna JKM, Saju B . 'Impact of subventricular zone irradiation on outcome of patients with glioblastoma'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(6): 1202-6.
50	Menon S, Kumar RP, Saju B, Nair RK . 'Evaluation of plan quality metrics in stereotactic radiosurgery/radiotherapy in the treatment plans of arteriovenous malformations'. <i>Journal of Medical Physics</i> . 2018/43(4): 214-20.
51	Nair M, Rajeev KR, Prahladan A, Mathews A, Kusumakumary P . 'Building a neuro-oncology program and epidemiological profiling of pediatric brain tumors in a tertiary cancer care center in India'. <i>Middle East Journal of Cancer</i> . 2018/9(3): 228-34.
52	Nair M, Vijayalekshmi K, Nair AR, Binitha R, Priyakumari T, Kusumakumary P, Guruprasad CS . 'Iron overload in children with leukemia receiving multiple blood transfusions'. <i>Indian Pediatrics</i> . 2018/55(11): 962-5.
53	Nambiar RK, Anoop TM, Haridas L, Daniel S . 'Numb Chin Syndrome as the initial manifestation of breast carcinoma'. <i>Indian Journal of Surgical Oncology</i> . 2018/9(3): 391-3.
54	Nambiar RK, Anoop TM, Mony RP . 'Abdominal wall endometriosis mimicking metastases'. <i>Indian Journal of Surgical Oncology</i> . 2018/9(2): 278-9.
55	Nambiar RK, Haridas L . 'Malignancy presenting as a psoas abscess'. <i>Indian Journal of Surgical Oncology</i> . 2018/9(2): 282-3.
56	Nath PG, Priyakumari T, Krishna JKM, Krishnachandran R, Hariharan S . 'Clinical significance of c-KIT mutations in children with acute myeloid leukemia: an Indian study'. <i>International Journal of Pharmacy and Biological Sciences</i> . 2019/9(1): 930-7.
57	Padinjarathil H, Joseph MM, Unnikrishnan BS, Preethi GU, Shiji R, Archana MG, Maya S, Syama HP, Sreelekha TT . 'Galactomannan endowed biogenic silver nanoparticles exposed enhanced cancer cytotoxicity with excellent biocompatibility'. <i>International Journal of Biological Macromolecules</i> . 2018/118(10): 1174-82.
58	Philip FN, Devi R, Koshy RC, Krishna JKM . 'Informed consent: a survey among anaesthesiologists in south India'. <i>Journal of Medical Science and Clinical Research</i> . 2019/7(3): 1097-1102.
59	Pillai VS, Bhagyalekshmi KR, Varughese SA . 'Safety and efficacy of multiple site thoracic paravertebral nerve block vs. modified pectoral nerve block for postoperative analgesia after modified radical mastectomies: a randomised controlled trial'. <i>Indian Journal of Clinical Anaesthesia</i> . 2018/5(3): 445-50.
60	Pillai VS, Koshy RC, Krishna JKM, Bhagyalekshmi KR . 'Role of preoperative investigations in elderly patients undergoing oncosurgical procedures: a retrospective review audit'. <i>Journal of Anaesthesiology Clinical Pharmacology</i> . 2018/34(4): 535-9.
61	Prabhu VV, Elangovan P, Devaraj SN, Sakthivel KM . 'Targeting apoptosis by 1,2-diazole through regulation of EGFR, Bcl-2 and CDK-2 mediated signaling pathway in human non-small cell lung carcinoma A549 cells'. <i>Gene</i> . 2018/679(1): 352-9.
62	Prasanth VR, Guruprasad CS, Priyakumari T . 'Tumor genesis syndrome in a paediatric patient with Burkitt lymphoma of abdomen'. <i>Scholars Journal of Applied Medical Sciences (SJAMS)</i> . 2018/6(8): 3119-21.
63	Prasanth VR, Nair M, Priyakumari T . 'Persistent parvovirus B19 encephalitis in a paediatric patient with B-lymphoblastic lymphoma'. <i>Scholars Journal of Medical Case Reports</i> . 2018/6(8): 545-7.
64	Prasanth VR, Priyakumari T, Mathew A . 'Clear cell sarcoma of soft parts: a rare paediatric entity'. <i>Saudi Journal of Medicine</i> . 2018/3(8): 463-6.
65	Priyakumari T, Chandar R, Jayasree K, Ramachandran K . 'Pediatric primary ovarian angiosarcoma: from rarity to a realization'. <i>Journal of Pediatric and Adolescent Gynecology</i> . 2018/31(6): 629-31.
66	Raj D , Rathy R. 'Juvenile xanthogranuloma: a case report and review of the literature'. <i>International Journal of Odontostomatology</i> . 2018/12(3): 327-31.
67	Rema P . 'Gynecological cancers: the changing paradigm'. <i>Indian Journal of Surgical Oncology</i> . 2019/10(1): 156-61.
68	Remya MJ, Hameed AS, Sujathan K . 'Cytotoxicity of decoction of a polyherbal formulation in breast cell line'. <i>International Journal of Advanced Research</i> . 2018/6(7): 785-94.
69	Riju J, George NA, Krishna JKM . 'Salvage surgery versus primary surgery for buccal mucosal squamous cell carcinoma and the need for neck dissection'. <i>Journal of Medical Science and Clinical Research</i> . 2018/6(8): 218-25.

70	Riju J, Thomas S, Anila KR. 'Completion thyroidectomy in differentiated thyroid malignancy: a prospective analysis'. Indian Journal of Surgical Oncology. 2019/10(1): 130-4.
71	Riju J, Thomas S, Iype EM, George NA. 'Nasolabial flap tunneled under mandible (NLFTUM): an alternative to free flap, in T3 tongue reconstruction'. International Journal of Innovative Research in Medical Science. 2018/3(12): 2324-8.
72	Riju J. 'Diagnostic dilemma for an unusual presentation of thyroid malignancy'. Indian Journal of Case Reports. 2018/4(4): 333-5.
73	Romera A, Peredpaya S, Shparyk Y, Bondarenko I, Mendonca Bariani G, Cristina Abdalla K, Roca E, Franke F, Melo Cruz F, Ramesh A, Ostwal V, Shah P, Sajeed A , Paravisini A, Huerga C, Del Campo Garcia A, Millan S. 'Bevacizumab biosimilar BEVZ92 versus reference bevacizumab in combination with FOLFOX or FOLFIRI as first-line treatment for metastatic colorectal cancer: a multicentre, open-label, randomised controlled trial'. The Lancet Gastroenterology & Hepatology. 2018/3(12): 845-55.
74	Sagila SG, Nath SR. 'Prevalence of ESBL and Amp C producing Enterobacteriaceae in a tertiary care cancer hospital in South India with special reference to <i>E. coli</i> and <i>Klebsiella pneumoniae</i> '. IOSR Journal of Dental and Medical Sciences. 2019/18(2): 25-30.
75	Sakthivel KM, Guruvayoorappan C. 'Targeted inhibition of tumor survival, metastasis and angiogenesis by <i>Acacia ferruginea</i> mediated regulation of VEGF, inflammatory mediators, cytokine profile and inhibition of transcription factor activation'. Regulatory Toxicology and Pharmacology. 2018/95(1): 400-11.
76	Sankar AS, Sivanandan CD, Sajeed A, Roshni S, Haridas MG, Lijeesh AL, Nithiyaanandan N. 'Clinical outcome of radical chemoradiation in squamous cell carcinoma of the esophagus'. Journal of Medical Science and Clinical Research. 2018/6(4): 804-12.
77	Saranya G, Joseph MM, Karunakaran V, Nair JB, Saritha VN, Veena VS, Sujathan K, Ajayaghosh A, Maiti KK. 'Enzyme-driven switchable fluorescence-SERS diagnostic nanococktail for the multiplex detection of lung cancer biomarkers'. ACS Applied Materials & Interfaces. 2018/10(45): 38807-18.
78	Seetharam S, Priyakumari T, Jacob PM, Nair RA. 'Precursor B-cell lymphoblastic lymphoma of bone in children: a close mimicker of Ewing's sarcoma'. Indian Journal of Medical and Paediatric Oncology. 2018/39(3): 385-7.
79	Sharma N, George NA, Singh R, Iype EM, Varghese BT, Thomas S. 'Surgical management of head and neck soft tissue sarcoma: 11-year experience at a tertiary care centre in South India'. Indian Journal of Surgical Oncology. 2018/9(2): 187-91.
80	Sheeja K, Lakshmi S. 'Antimetastatic potential of Garcinone E in human oral cancer cells'. Asian Pacific Journal of Cancer Prevention. 2019/20(1): 65-72.
81	Singh A, Kamal R, Ahamed MI, Sudam WM, Bihari V, Sathian B, Kesavachandran N. 'PAH-exposure-associated lung cancer: an updated meta-analysis'. Occupational Medicine. 2018/68(4): 255-61.
82	Sreelatha KH, Satheesh Kumar S, Revathy N, Dev J, Reshma RS, Somasundaram V, Ratheesh Kumar T, Rajan A, Neetha RL, Varghese GR, Mathew AP, Somanathan T, Srinivas P. 'BRCA1 defective breast cancer cells induce <i>in vitro</i> transformation of cancer associated fibroblasts (CAFs) to metastasis associated fibroblasts (MAF)'. Scientific Reports. 2018/8(1): Article ID: 13903.
83	Sreelekha A, Preethi TR, Jayapriya G, Mathews A. 'Sclerosing polycystic adenosis: a case report with review of the literature'. Indian Journal of Pathology and Microbiology. 2019/62(1): 136-8.
84	Subha R, Cherian K, Nair AR, Koshy RC, Krishna JKM. 'Cancer relapse in surgical patients who received perioperative transfusion of blood and blood products: a case-control study'. Indian Journal of Anaesthesia. 2019/63(1): 31-5.
85	Subha R, Morris LJ, Suma R. 'Maintenance of arterial pressure during spinal anaesthesia in caesarean section: comparison of intravenous phenylephrine hydrochloride and ephedrine'. Journal of Medical Science and Clinical Research. 2018/6(11): 428-33.
86	Sugath S, Jayasree K, Shrijith MB. 'Unusual presentation of chordoma in distal radius'. Journal of Bone and Soft Tissue Tumors. 2018/4(2): 33-5.
87	Sugeeth MT, Benson R, Anoop TM. 'Carcinoma breast as a second malignancy following AML: a case report and review of literature'. Scholars Journal of Medical Case Reports. 2018/6(5): 347-9.
88	Sugeeth MT, Nair SG, Benson R. 'Plasmacytoma of the mesentery'. Journal of Postgraduate Medicine. 2018/64(4): 255-7.
89	Sukumaran R, Nair RA. 'Adult T cell leukemia/lymphoma complicated by proliferation of large B cells: a diagnostic dilemma'. Journal of Hematopathology. 2018/11(3): 83-6.
90	Sukumaran R, Nayak N, Jayasree K, Nair SP, Anila KR, Venugopal M. 'Cytomorphological spectrum of ultrasound guided fine needle aspiration cytology of liver lesions, and the role of cell block preparation and immunohistochemistry in the diagnosis: an analysis of 638 consecutive aspirations'. Journal of Medical Science and Clinical Research. 2018/6(4): 875-81.
91	Sunil Kumar P, Nair SS. 'Use of online resources: a study based on actual usage data'. Journal of Knowledge and Communication Management. 2018/8(1): 1-12.

92	Thomas JT, Bhagyalekshmi KR, Koshy RC. 'Assessment of retention of skills with simulator based training among anaesthesiology residents'. <i>Journal of Medical Science and Clinical Research.</i> 2018/6(10): 1309-15.
93	Thomas M, Philip FA, Mathew AP, Krishna JKM. 'Intraoperative pectoral nerve block (Pec) for breast cancer surgery: a randomized controlled trial'. <i>Journal of Anaesthesiology Clinical Pharmacology.</i> 2018/34(3): 318-23.
94	Thomas S, Boparaj VS, Tiwari VK, Varghese BT, Balagopal PG, Iype EM, George NA, Janardhan D. 'Prospective evaluation of surgical outcome after transoral CO ₂ laser resection of potentially malignant and early oral malignancy'. <i>Indian Journal of Surgical Oncology.</i> 2018/9(3): 407-10.
95	Varghese BT, Patil S. 'Completion total laryngectomy ten years after near total laryngectomy for radio recurrent cancer of the glottis'. <i>Indian Journal of Surgical Oncology.</i> 2018/9(4): 605-8.
96	Varghese BT, Riju J. 'Cricotracheal resection and thyrotracheal anastomosis for thyroid carcinoma invading airway'. <i>Journal of Head and Neck Physicians and Surgeons.</i> 2018/6(1): 57-9.
97	Varghese BT. 'Identification of accessory nerve in neck dissection: the telephone wire appearance'. <i>Journal of Head and Neck Physicians and Surgeons.</i> 2018/6(1): 60-1.
98	Veena VS, George PS, Rajan K, Chandramohan K, Jayasree K, Sujathan K. 'Immunocytochemistry on sputum samples predicts prognosis of lung cancer'. <i>Journal of Cytology.</i> 2019/36(1): 38-43.

Abstracts in Journals

99	Akhilesh CS, Lijeesh AL, Roshni S, Sajeed A, Sankar AS, Geethi MH, Sivanandan CD. 'Intraabdominal desmoplastic round cell tumor: a case report (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics.</i> 2018/14(Suppl.4): S918.
100	Ameer N, Rafi M, Kumar RR, Kainickal CT, Ramadas K. 'Dosimetric parameters, acute toxicities and quality of life of patients with Intensity Modulated Radiation Therapy, simultaneous integrated boost protocol for nasopharyngeal cancer: a prospective study (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics.</i> 2018/14(Suppl.4): S884.
101	Anju KS, Rajeev KR, Mathew BS. 'Comparison of imaging modalities for the accurate delineation of arteriovenous malformations and evaluation of set up accuracy with reference to non-invasive mask based stereotactic radiosurgery (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics.</i> 2018/14(Suppl.4): S836-7.
102	Aparna MP, Roshni S, Sankar AS, Sajeed A, Geethi MH, Lijeesh AL, Saju B, Krishna JKM, Sivanandan CD. 'Clinical outcomes of stereotactic radiotherapy for early stage lung cancer at a tertiary care center: a retrospective analysis (AROINCON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics.</i> 2018/14(Suppl.4): S906.
103	Aryakrishna SL, Kumar RR, Mathews A, Renuka G. 'NUT midline carcinoma of nasal cavity: a case report (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics.</i> 2018/14(Suppl.4): S921.
104	Babu G, Mathews S, Jayaprakash PG, George PS, Kumar A, Joseph J, James FV. 'Outcome of radically treated cervical cancer: results from a large volume center in South India (17th Biennial meeting of the International gynecologic cancer society-abstract)'. <i>International Journal of Gynecologic Cancer.</i> 2018/28(Suppl.2): 335.
105	Babu S, Nair SP, Preethi TR, Mathews A, Jayasree K. 'Superficial CD34 positive fibroblastic tumor: case series of a rare and novel entity (APCON 2018 abstract)'. <i>Indian Journal of Pathology and Microbiology.</i> 2018/61(Suppl.1): S22.
106	Balachandran H, Sajeed A. 'Case report of gall bladder neuroendocrine carcinoma (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics.</i> 2018/14(Suppl.4): S913.
107	Benson R, Haridas L, Sugeeth MT. 'Patient characteristics, patterns of care and survival outcome in patients with adult testicular granulosa cell tumor: an individual patient data meta - analysis (ESMO Asia 2018 abstract)'. <i>Annals of Oncology.</i> 2018/29(Suppl.9): ix77-8.
108	Binitha R, Guruprasad CS, Nair M, Sugath S, Priyakumari T. 'Feasibility of administration and toxicity profile of MAP chemotherapy in pediatric non-metastatic osteosarcoma patients: experience from a tertiary cancer centre in India (PHOCON 2018 abstract)'. <i>Pediatric Hematology Oncology.</i> 2018/3(3): 552.
109	Boddu D, Priyakumari T, Jayasree K, Sugath S, Kumar A, Guruprasad CS, Nair M, Binitha R, Seetharam S. 'Is extracorporeal irradiation and re-implantation a good enough alternative to implants in paediatric bone tumours?'. (PHOCON 2018 abstract)'. <i>Pediatric Hematology Oncology.</i> 2018/3(3): 552.
110	Chacko B, Kainickal CT, Kumar RR, Rafi M, Lijeesh AL, Aparna MP, Kumar NP, Ramadas K. 'Clinical profile and treatment outcomes of squamous cell carcinoma maxilla: a retrospective analysis (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics.</i> 2018/14(Suppl.4): S875.

111	Chacko B, Mathews S, Shaiju VS. 'Radiotherapy treatment plan delivering more than 60Gy in locally advanced carcinoma vulva (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S928-9.
112	Eapen AE, Roshni S, Lijeesh AL, Sajeed A, Geethi MH, Sankar AS, Sivanandan CD. 'Isolated skeletal muscle metastasis in a case of adenocarcinoma (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S917
113	Farsana AA, Rajeev KR, Koshy SM. 'False positive PET scan in breast cancer: report of two cases (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S922.
114	George A, Kumar A, James FV, Mathews S, Kumar NP, Kumar RP, Saju B, Menon S. 'A prospective clinical evaluation of the short-term toxicities and dosimetric comparison of tandem and ring versus tandem and ovoid applicators in cervical cancer (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S863-4.
115	Gopakumar KG, Hariharan S, Seetharam S, Nair M, Binitha R, Guruprasad CS. 'Inferior outcomes in children having t(8;21) translocation in pediatric AML: a prospective analysis from south India (50th SIOOP 2018 abstract)'. <i>Pediatric Blood and Cancer</i> . 2018/65(Suppl.2): S176.
116	Gopakumar KG, Priyakumari T, Nath SR, Seetharam S, Nair M, Binitha R, Guruprasad CS. 'Infections and infection related mortality during induction chemotherapy in children with acute myeloid leukemia: a prospective analysis from south India (50th SIOOP 2018 abstract)'. <i>Pediatric Blood and Cancer</i> . 2018/65(Suppl.2): S177.
117	Gopakumar KG, Priyakumari T, Seetharam S, Krishna JKM, Nair M, Binitha R, Guruprasad CS, Prasanth VR. 'Risk based management strategies and outcomes among children at risk of tumor lysis syndrome: analysis of children with leukemia/lymphoma in resource limited settings (50th SIOOP 2018 abstract)'. <i>Pediatric Blood and Cancer</i> . 2018/65(Suppl.2): S508.
118	James FV, Nair P, Mathews S, Joseph J, Krishna JKM, Suchetha S, Kumar A. 'Non-dysgerminomatous tumours of ovary: clinical outcome (State of the art conference of the European Society of Gynecological Oncology-2018 abstract)'. <i>International Journal of Gynecological Cancer</i> . 2018/28(Suppl.3): 212.
119	Kainickal CT, Farida N, Kumar RR, Rafi M, Lijeesh AL, Saju B, George PS, Ramadas K. 'Intensity Modulated Radiotherapy (IMRT) for Ca nasopharynx: a retrospective analysis (7th ICHNO abstract)'. <i>Radiotherapy and Oncology</i> . 2019/132(suppl.1): 33.
120	Krithika E, Geetha N, Priyakumari T, Venugopal M, Jayasree K. 'Comparative study of the diagnostic indices of immunohistochemical markers: CD99 and FLI-1 in Ewing's sarcoma(es) and other small round cell tumors of bone and soft tissue (APCON 2018 abstract)'. <i>Indian Journal of Pathology and Microbiology</i> . 2018/61(Suppl.1): S23.
121	Mullanfiroze K, Gupta S, Singhal T, Tulpule S, Sawant R, Sen S. 'Granulocyte transfusions as a means for tiding over life threatening infections in severely neutropenic children: a single centre experience (PHOCON 2018 abstract)'. <i>Pediatric Hematology Oncology</i> . 2018/3(3): 558.
122	Nair LM, Krishna JKM, Kumar A, Mathews S, Joseph J, James FV. 'Clinicopathological features and outcomes of adrenocortical carcinoma: a single institution experience (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S916.
123	Nair M, Binitha R, Guruprasad CS, Priyakumari T. 'Trend over time in epidemiology and outcome of pediatric neuroblastoma: experience from a Regional Cancer Centre in India (PHOCON 2018 abstract)'. <i>Pediatric Hematology Oncology</i> . 2018/3(3): 551.
124	Nair P, Kumar A, Mathews S, Joseph J, Suchetha S, Krishna JKM, James FV. 'Dysgerminoma ovary: clinical features and treatment outcome (ESMO Asia 2018 abstract)'. <i>Annals of Oncology</i> . 2018/29(Suppl.9): Article ID: mdy436.002
125	Nair P, Sankar AS, Saju B, Roshni S, Geethi MH, Sajeed A, Mithun S, Sivanandan CD. 'Prospective comparative study of dosimetric parameters in 3D versus 4D CT image acquisition in conformal radiotherapy of carcinoma lung (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S903-4.
126	Prasad S, Jayasree K, Nair SP, Nair SG, Priyakumari T, Venugopal M. 'Skull bone tumors: a 7- year retrospective study in tertiary care center (APCON 2018 abstract)'. <i>Indian Journal of Pathology and Microbiology</i> . 2018/61(Suppl.1): S22.
127	Prasanth VR, Priyakumari T, Binitha R, Guruprasad CS, Nair M, Gopakumar KG. 'Loss of protective anti HBS antibodies and seroconversion to hepatitis B vaccination in children during chemotherapy for acute lymphoblastic leukemia (50th SIOOP 2018 abstract)'. <i>Pediatric Blood and Cancer</i> . 2018/65(Suppl.2): S533.
128	Prasanth VR, Priyakumari T, Nair M, Binitha R, Guruprasad CS, Seetharam S, Nair SP. 'Infant neuroblastoma: 10 year experience from a tertiary cancer centre in a low and middle income country (50th SIOOP 2018 abstract)'. <i>Pediatric Blood and Cancer</i> . 2018/65(Suppl.2): S274.
129	Priya PK, Sajeed A, Priya A, Anila KR. 'Squamous cell carcinoma in pilonidal sinus (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S922.

130	Rakesh A, James FV. 'Observational study of inflammatory markers in cancer of uterine cervix (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S865.
131	Ram J, Santhoshkumar TR, Sujathan K. 'Galectin -3 contribute for drug resistance and EMT in TNBC (3rd World Conference on Breast and Cervical Cancer; 2018 abstract)'. <i>Journal of Integrative Oncology</i> . 2018/7(1): 27.
132	Seetharam S, Priyakumari T, Gopakumar KG. 'Higher incidence of SIADH during induction chemotherapy in pediatric acute lymphoblastic leukemia: an Indian experience (50th SIOP 2018 abstract)'. <i>Pediatric Blood and Cancer</i> . 2018/65(Suppl.2): S540-1.
133	Seth R, Kapoor G, Arora R, Verma N, Kumar A, Mahajan A, Kalra M, Mandal P, Priyakumari T, Das A, Ramamoorthy J. 'The Indian childhood cancer survivorship study(C2S study) : after treatment completion registry of childhood cancers- phase- I. An InPOG-LE-16-01 study (50th SIOP 2018 abstract)'. <i>Pediatric Blood and Cancer</i> . 2018/65(Suppl.2): S698.
134	Sivanandan CD, Sajeed A, Roshni S, Sankar AS, Lijeesh AL, Krishna JKM, Geethi MH. 'A radical conformal radiotherapy and concurrent chemotherapy in locoregionally advanced and medically inoperable early stage non-small cell lung cancer: a single institution experience (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S907.
135	Somanath G, Arjunan A. 'Observational analysis of clinical profile and treatment outcomes of patients with newly diagnosed glioblastoma multiforme treated at Regional Cancer Centre ,Thiruvananthapuram (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S833.
136	Suresh S, George NA. 'Prevalence of BRAF, RAS and RET/PTC gene mutations in aggressive well-differentiated thyroid cancers (7th ICHNO abstracts)'. <i>Radiotherapy and Oncology</i> . 2019/132(suppl.1): 90.
137	Thomson JK, Sajeed A. 'Neuroendocrine neoplasms in anal canal (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S913.
138	Zuzaki S, Rajevee KR, Mathews A, Easwer HV. 'Intracranial rosai-dorfman disease: a case report (AROICON 2018 abstract)'. <i>Journal of Cancer Research and Therapeutics</i> . 2018/14(Suppl.4): S921-2.
Conference papers	
139	Babu G, Mathews S, Jayaprakash PG, George PS, Kumar A, Joseph J, James FV. 'Patterns of loco-regional recurrence after definitive chemo-radiotherapy for cervical cancer'. In: Abstract book/ESTRO Meets Asia 2018. Singapore: ESTRO, 2018. p. S100-1.
140	Babu S, Nair SP, Preethi TR, Mathews A, Jayasree K. 'Superficial CD34 positive fibroblastic tumor: case series of a rare and novel entity'. In: Abstract book/International CME in Pathology, Histopathology and Cytopathology, Goa, 2019. p.91.
141	Biba VS, Akhil BS, Suja SR, Remani P, Sujathan K. ' <i>Simarouba glauca</i> and <i>Annona squamosa</i> induce cytotoxicity in human cancer cells'. In: Proceedings of 7th International Conference on Translational Cancer Research, Chennai: IIT Madras Society for Translational Cancer Research, 2018. p.89.
142	Deepthi B, Nayak N, Sukumaran R, Nair SP, Anila KR, Jayasree K, Venugopal M, Geetha N. 'The spectrum of bony lesions diagnosed by FNAC in an oncology centre in South India: a ten year retrospective study'. In: Abstract book/International CME in Pathology, Histopathology and Cytopathology, Goa, 2019. p.89-90.
143	Jayalekshmi P, Nair RK, Sebastian P, Nakamura S, Akiba S. 'Cancer risk in relation to HBR exposure among the Karunagappally cohort, Kerala, India: cancer incidence during the period 1990-2013'. In: Proceedings of the 9th International Conference on High Level Environmental Radiation Areas. (ICHLERA 2018). Hiroasaki, 2018. p.68.
144	Jayasudha AV, Nair RA, Sukumaran R, Jacob PM, Nair SG. 'Primary extranodal lymphomas in Kerala, South India'. In: Book of abstracts: 19th meeting of the European Association for Haematopathology, Edinburgh, 29 September-4 October 2018. p.128.
145	Karunakaran V, Saritha VN, Kumar S, Sujathan K, Maiti KK. 'New insight on non-invasive label free diagnosis of the cervical pre-cancers by metabolomics and genomics profiling using differential SERS finger printing'. In: Proceedings of the 30th Kerala Science Congress. Thalassery: Govt Brennen College, 2018. p.236-7.
146	Krishnachandran R, Vijay S, Nath PG, Geetha N, Hariharan S. 'A comparative analysis of cytogenetic and molecular factors in different phases of chronic myelogenous leukemia'. In: Proceedings of the 30th Kerala Science Congress. Thalassery: Govt Brennen College, 2018. p.97-8.
147	Nair PR, Mathews A, Mony RP, Radhakrishnan N, Anila KR, Balaji R, Jayasree K. 'Comparison of hormone receptor and HER2/ NEU expression status in core needle biopsies and excision specimens in patients with carcinoma breast'. In: Abstract book/ International CME in Pathology, Histopathology and Cytopathology, Goa, 2019. p.91-2.
148	Nair RA, Sukumaran R, Jacob PM, Jayasudha AV. 'Primary gastrointestinal lymphomas: a four year study of 152 cases from a tertiary cancer centre in South India'. In: Book of abstracts: 19th meeting of the European Association for Haematopathology, Edinburgh, 29 September-4 October 2018. p.120.

149	Nath PG, Krishnachandran R, Aswathy CG, Kusumakumary P, Hariharan S. 'Prognostic significance of FLT3 mutation and cytogenetic profiling of children with de novo acute myeloid leukemia'. In: Proceedings of the 30th Kerala science congress. Thalassery: Govt Brennen College, 2018. p.253-4.
150	Preethi GU, Unnikrishnan BS, Archana MG, Sreelekha TT. 'Development of nano-silver doped polysaccharide scaffolds for efficient healing applications'. In: Proceedings of international seminar on recent biochemical approaches in therapeutics. Thiruvananthapuram: Dept. of Biochemistry, University of Kerala, 2018. p.99-100.
151	Rajagopal R, Jayasree K, Nair SP, Priyakumari T. 'Primary bone tumours of maxilla and mandible: a retrospective study'. In: Abstract book/International CME in Pathology, Histopathology and Cytopathology, Goa, 2019. p.92.
152	Ram J, Santhoshkumar TR, Sujathan K. 'Role of Galectin-3 in epithelial mesenchymal transition of TNBC cells'. In: Indo-Australian symposium on epithelial-mesenchymal transition, Pune, 2018. p.42.
153	Ramadas K, Iype EM, Mathews A, Somanathan T, Radhakrishnan N, Jayasree K. 'Sinonasal adenocarcinoma: a 9 year experience from a cancer centre in south India'. In: Abstract book/International CME in Pathology, Histopathology and Cytopathology, Goa, 2019. p.90-91.
154	Shiji R, Sreelekha TT. 'Polysaccharide coated superparamagnetic iron oxide nanoparticles for folate receptor targeted methotrexate delivery'. In: Proceedings of the 30th Kerala Science Congress. Thalassery: Govt Brennen College, 2018. p.97-8.
155	Simi CM, Nair RA, Jacob PM, Jayasudha AV. 'Flow cytometry in chronic B lymphoproliferative disorders: study from a tertiary oncology centre'. In: Abstract book/International CME in Pathology, Histopathology and Cytopathology, Goa, 2019. p.89.
156	Sinto MS, Roshan VGD, Kannan S. 'NF KB P65/IkB alpha autoregulatory loop plays significant role in oral cancer progression'. In: Proceedings of the 30th Kerala Science Congress. Thalassery : Govt Brennen college, 2018. p.287-8.
157	Sreekumar A, Jayalekshmi P, Nandakumar A, Nair RK, Ahammed A, Sebastian P, Koriyama C, Akiba S, Nakamura S, Konishi J. 'The prevalence of thyroid nodules among women in high background radiation area, Karunagappally, Kerala, India'. In: Proceedings of the 9th International Conference on High Level Environmental Radiation Areas (ICHLERA 2018). Hirosaki, 2018. p.69.

Chapters in Books

158	Anoop TM, Nambiar RK. 'Hairy cell leukemia'. In: A textbook of clinical oncology in the Indian context. Vol.2/edited by Suresh Sanchetee. Jodhpur: Sanchetee Hospital, 2018. p.942-6.
159	Anoop TM, Nambiar RK. 'Immunodeficiency in cancer'. In: A textbook of clinical oncology in the Indian context. Vol.1/edited by Suresh Sanchetee. Jodhpur: Sanchetee Hospital, 2018. p.29-30.
160	Jayalekshmi P. 'Studies in Karunagappally, Kerala, India'. In: Sources, effects and risks of ionizing radiations/ United Nations Scientific Committee on the effects of atomic radiation, 2017. New York: United Nations, 2018. p.99-109.
161	Mathew A, George PS. 'Cancer in populations in transition'. In: Encyclopedia of cancer/edited by Boffetta P and Hainut P-3rd ed.-Elsevier; 2018. p.191-211.
162	Mathew A, Sanchetee S. 'Statistics tool in oncology'. In: A textbook of clinical oncology in the Indian context. Vol.1/edited by Suresh Sanchetee. Jodhpur: Sanchetee Hospital, 2018. p.21-7.
163	Nair SS. 'Library and information support for medical professionals in India'. In: KELPRO Silver Jubilee Souvenir 2018/edited by M. Chandrakumaran Nair. Thiruvananthapuram: Kerala Library Professionals Organisation, 2018. p.85-9.
164	Nambiar RK, Anoop TM. 'Chronic lymphocytic leukemia (CLL)'. In: A textbook of clinical oncology in the Indian context. Vol.2/edited by Suresh Sanchetee. Jodhpur: Sanchetee Hospital, 2018. p.930-7.
165	Nambiar RK, Anoop TM. 'Prolymphocytic leukemia'. In: A textbook of clinical oncology in the Indian context. Vol.2/edited by Suresh Sanchetee. Jodhpur: Sanchetee Hospital, 2018. p.938-41.
166	Sankaranarayanan R, Ramadas K, Bhatla N, Basu P. 'Early detection of cancer by screening and early diagnosis'. In: A textbook of clinical oncology in the Indian context. Vol.1/edited by Suresh Sanchetee. Jodhpur: Sanchetee Hospital, 2018. p.126-54.
167	Sujathan K. 'Laboratory techniques in oncology'. In: A textbook of clinical oncology in the Indian context. Vol.1/edited by Suresh Sanchetee. Jodhpur: Sanchetee Hospital, 2018. p.206-29.

Theses

168	Abbas S. 'Clinical outcome of adjuvant radiotherapy in early stage breast cancer with 1 to 3 positive axillary lymph nodes: a single institution experience'. Thrissur: Kerala University of Health Sciences, 2019. 73p. (MD Radiotherapy).
169	Arya S. 'A prospective observational study on the predictability of postoperative nausea and vomiting in patients undergoing oncosurgeries under general anaesthesia'. Thrissur: Kerala University of Health Sciences, 2018. 82p. (MD Anaesthesiology).

170	Babu A. 'Observational study of inflammatory markers in cancer of uterine cervix'. Thrissur: Kerala University of Health Sciences, 2018. 56p. (<i>MD Radiotherapy</i>).
171	Chacko B. 'Feasibility of implementing ICRU 89 recommendations in computed tomography image based brachytherapy of carcinoma cervix'. Thrissur: Kerala University of Health Sciences, 2018. 75p. (<i>MD Radiotherapy</i>).
172	Chitra R. 'Geometric uncertainties in anatomical subregions in intensity modulated radiotherapy for nasopharyngeal cancer'. Thrissur: Kerala University of Health Sciences, 2018. 67p. (<i>MD Radiotherapy</i>).
173	Farida N. 'Clinical profile and treatment outcomes in patients treated with Intensity Modulated Radiotherapy (IMRT) for carcinoma nasopharynx: a retrospective analysis'. Thrissur: Kerala University of Health Sciences, 2019. 78p. (<i>MD Radiotherapy</i>).
174	George A. 'A prospective clinical evaluation of the short term toxicities and dosimetric comparison of tandem and ring versus tandem and ovoid applicators in cervical cancer'. Thrissur: Kerala University of Health Sciences, 2018. 68p. (<i>MD Radiotherapy</i>).
175	Gouri S. 'Observational analysis of clinical profile and treatment outcomes of patients with newly diagnosed glioblastoma multiforme treated at Regional Cancer Centre, Thiruvananthapuram'. Thrissur: Kerala University of Health Sciences, 2018. 57p. (<i>MD Radiotherapy</i>).
176	Kumar BG. 'The effect of nebulised magnesium sulphate on the incidence of post-operative sore throat'. Thrissur: Kerala University of Health Sciences, 2019. 100p. (<i>MD Radiotherapy</i>).
177	Lekshmi SS. 'Performance in six-minute walk test (6MWT) for predicting post-operative pulmonary complications at a tertiary care hospital: a prospective observational study'. Thrissur: Kerala University of Health Sciences, 2019. 95p. (<i>MD Anaesthesiology</i>).
178	Nair AR. 'Effect of BIS monitoring on sevoflurane consumption in patients undergoing breast cancer surgeries under general anaesthesia'. Thrissur: Kerala University of Health Sciences, 2019. 75p. (<i>MD Anaesthesiology</i>).
179	Nair P. 'Prospective comparative study of dosimetric parameters in three dimensional versus four dimensional CT image acquisition in conformal radiation of carcinoma lung'. Thrissur: Kerala University of Health Sciences, 2018. 75p. (<i>MD Radiotherapy</i>).
180	Nazneen P. 'Assessment of the reproducibility of bladder and rectal doses with Bladder-Rectum Spacer Balloon (BRSB) versus Vaginal Gauze Packing (VGP) in High Dose Rate image guided brachytherapy for carcinoma cervix'. Thrissur: Kerala University of Health Sciences, 2019. 82p. (<i>MD Radiotherapy</i>).
181	Pious J. 'Safety and post-operative analgesic efficacy of continuous posterior transversus abdominis plane block for lower abdominal gynaecological surgeries'. Thrissur: Kerala University of Health Sciences, 2019. 75p. (<i>MD Anaesthesiology</i>).
182	Prasad S. 'Diagnostic accuracy of FNAC and core needle biopsy in breast carcinoma'. Thrissur: Kerala University of Health Sciences, 2019. 94p. (<i>MD Pathology</i>).
183	Rajitha G. 'Molecular dynamics of Epstein Barr virus in carcinoma nasopharynx'. Thrissur: Kerala University of Health Sciences, 2018. 82p. (<i>MD Radiotherapy</i>).
184	Sebastian A. 'Results of curative hypofractionated radiotherapy for stage 1-3 breast cancer patients'. Thrissur: Kerala University of Health Sciences, 2019. 65p. (<i>MD Radiotherapy</i>).
185	Sherief PA. 'Frequency of human papilloma virus infection in oropharyngeal squamous cell carcinoma and its clinical significance: a retrospective study'. Thrissur: Kerala University of Health Sciences, 2018. 79p. (<i>MD Radiotherapy</i>).
186	Veena P. 'Assessment of analgesic efficacy of bilateral superficial cervical plexus block for thyroid surgeries under general anaesthesia'. Thrissur: Kerala University of Health Sciences, 2019. 67p. (<i>MD Anaesthesiology</i>).
187	Vinoth KE. 'A comparison of pharyngolaryngeal morbidity following supraglottic airway insertion after the administration of Betamethasone gel or lidocaine jelly'. Thrissur: Kerala University of Health Sciences, 2018. 68p. (<i>MD Anaesthesiology</i>).

Administration, Standing Committees & Right to Information

a. ADMINISTRATION

Director	:	Dr. Paul Sebastian (till 24.08.2018)
Director	:	Dr. Rekha A. Nair (from 15.10.2018)
Additional Director (Administration)	:	Dr. K. Ramadas (till 31.08.2018)
Additional Director (Academic)	:	Dr. K. Jayasree (till 05.09.2018)
Additional Director (Academic)	:	Dr. N. Geetha (from 06.09.2018)
Medical Superintendent	:	Dr. Beela Sarah Mathew (till 16.07.2018)
Medical Superintendent	:	Dr. Rejnish Kumar (from 16.07.2018 to 23.10.2018)
Medical Superintendent	:	Dr. Sajeed A (from 24.10.2018)
Deputy Medical Superintendent	:	Dr. Madhu Muralee (from 16.07.2018)

b. STAFF STRENGTH

Type of Staff	Permanent		Temporary/ Contract	Daily wages	Deputation		Consultants engaged	Total
	Existing	New Recruits			In	Out		
Academic	121	3	3	--	--	--	6	133
Non-Academic	729	7	82	66	5	--	5	894
Total	850	10	85	66	5	--	11	1027

c. ACADEMIC STAFF STRENGTH

Professors-15, Additional Professors-39, Associate Professors-17, Assistant Professors-50

d. NON-ACADEMIC STAFF

Administrative Office

Mahesh B (Sri)	Administrative Officer
Lalitha B (Smt)	Asst. Admin Officer Sr.Gr:
Jumailathu Beevi KM (Smt)	Office Assistant Sel.Gr:
Remila CK (Smt)	Office Assistant Sel.Gr:
Snehalatha HB (Smt)	Office Assistant Sel.Gr
Kalpna Soni S (Smt)	Office Assistant
Girija K (Smt)	Office Assistant
Padmarajan R (Sri)	Typist
Ajitha S (Smt)	Clinical Records Assitant
Seethalakshmi P S (Smt)	Despatcher
Senan S (Sri)	Senior Helper

Anaesthesiology

Abin Issac (Sri)	Operation Theatre Technician Sr. Gr
Rajendran Nair P (Sri)	Operation Theatre Technician
Manju RS (Smt)	Operation Theatre Technician
Kirankumar (Sri)	Operation Theatre Technician
Santhosh S (Sri)	Operation Theatre Technician
Sindhumol VA (Smt)	Operation Theatre Technician
Beenamma Chacko (Smt)	Operation Theatre Technician
Surabhi Chandran (Smt)	Operation Theatre Technician (joined on 18.06.2018)

Cancer Epidemiology & Bio-statistics

Asha NM (Smt)	Clerk Gr.I
Prasanth Kumar RK (Sri)	Data Entry Operator Sr Gr

Cancer Research

Hareendran NK (Sri)	Research Assistant Sr Gr
Vikraman Nair K (Sri)	Senior Animal House Keeper
Vinoj Kumar B (Sri)	Animal House Keeper (Joined on 16.05.2018)
Sreekumaran Nair P (Sri)	Driver Sel Gr

Clinical Laboratory

Usha J (Smt)	Technical Officer (Lab)
Helen B (Smt)	Technical Officer (Lab)
Rajesh KR (Sri)	Technical Officer (Lab)
Renuka P (Smt)	Technical Officer (Lab)
Ajaya Kumar R (Sri)	Lab. Technician Sel.Gr:
Jaya Kumar B (Sri)	Lab. Technician Sel.Gr:
Riyad RA (Sri)	Lab. Technician Sel.Gr:
Saneela S (Smt)	Lab. Technician Sel.Gr:
Sindhumony S (Smt)	Lab. Technician Sel.Gr:
Sini LS (Smt)	Lab. Technician Sel.Gr:
Sreelekha VK (Smt)	Lab. Technician Sel.Gr:

Trophy S (Sri)	Lab. Technician Sel.Gr.
Veena Devi Thankachy VS (Smt)	Lab. Technician Sel.Gr.
Beena Rani AS (Sri)	Lab. Technician
Anil Kumar R (Sri)	Senior Helper
Gopa Kumar (Sri)	Senior Helper

Clinical Services & Medical Records

Chandrika D (Smt)	Medical Records Officer-I Gr. I
Sreekumar B (Sri)	Asst. Administrative Officer (CS)
Anil Kumar K (Sri)	Medical Records Officer -II
Sreelatha S (Smt)	Clerk Sel. Gr.
Jaya Kumar P (Sri)	Clerk Gr. I
Thankamony Amma P (Smt)	Clerk Gr. I
Bindu Sadasivan (Smt)	Clerk Gr. I
Kumari Bindu PK (Smt)	Clerk Gr. I
Ambily O (Smt)	Clerk Gr. I
Nikhil S Bajju (Sri)	Clerk
John S (Sri)	Clerk (MRT) Gr. I
Girija R (Smt)	Clerk (MRT)
Geetha O (Smt)	Clerk (MRT)
Siju R. Nair (Smt)	Clerk (MRT)
Jayalekshmi P (Smt)	Coding Clerk Gr. I
Ajitha S (Smt)	Clinical Records Assistant
Gireesh S (Sri)	Clinical Records Assistant
Liji S (Smt)	Clinical Records Assistant
Kaladevi S (Smt)	Clinical Records Assistant
Savitha VM (Smt)	Clinical Records Assistant
Praveen J. Nair (Sri)	Clinical Records Assistant
Jonson K. Paul (Sri)	Physiotherapist
Premachandran Nair S (Sri)	Driver Sr. Gr.
Anil Kumar TT (Sri)	Driver
Balachandran BK (Sri)	Driver
Rajeendran GC (Sri)	Driver
Ajitha Kumari RB (Smt)	Hospital Attender
Mariyamma Varghese (Smt)	Hospital Attender
Hari C (Sri)	Dark Room Asst. Gr. I

Community Oncology

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

Director's Office

Deepa J (Smt)	Secretary to Director (resigned 22.09.2018)
Sajeesh CK (Sri)	Clinical Records Assistant
Antony P (Sri)	Despatcher

ECDC, Ernakulam

Latha A (Dr)	Cytopathologist
James Thomas M (Sri)	Technical Officer (Cyto)
Jolly GS (Smt)	Cytotechnologist
Lijo TV (Sri)	Lab. Technician Sel.Gr.

Renjini Thomas (Smt)	Lab. Technician Sel.Gr.
Resmi V (Smt)	Staff Nurse Sr. Gr.
Letha B (Smt)	Typist Gr. I
John Evidus P P (Sri)	Hospital Assistant

ECDC, Palakkad

Rekha SR (Dr)	Resident Medical Officer
Sanil PN (Sri)	Cytotechnologist Sr. Gr.
Shanavas A (Sri)	Cytotechnologist
Nirmala KC (Smt)	Staff Nurse Sel. Gr.
Ajila MS (Smt)	Staff Nurse Gr. I
Thomas Rajasekharan (Sri)	Senior Helper

Engineering Wing

Renjith R (Sri)	Maintenance Engineer (Mechanical) (joined 16.08.2018)
Rajendran KR (Sri)	Supervisor (Electrical) Sel.Gr.
Venugopalan Nair VR (Sri)	Supervisor (Electrical) Gr. I
Giji PS (Sri)	Supervisor (Electrical)
Jayakumar P (Sri)	Supervisor (Electrical)
Rajmohan MB (Sri)	Electrician Sel. Gr.
Suresh Kumar G (Sri)	Electrician Gr. I
Sunil Kumar R (Sri)	Electrician
Deepu SS (Sri)	Electrician
Sivarajan L (Sri)	Electronic Technician Sr.Gr.
Jayanthy JK (Smt)	Data Entry Operator Sel.Gr.
Santhosh Kumar MS (Sri)	Electronic Technician Sr.Gr.
Jayabalan Nair B (Sri)	Plumber Gr. I
Shalin Raj R (Sri)	Plumber
Sanjayan S (Sri)	Plumber
Shiju T (Sri)	Plumber (resigned on 21.01.2019)
Rajan P C (Sri)	Senior Helper

Finance & Accounts

Sanjeev R (Sri)	Controller of Finance (till 31.5.2018)
Suresh Kumar S (Sri)	Controller of Finance
Sunil VS (Sri)	Accounts Officer
Sasikumar K (Sri)	Asst. Internal Audit Officer Gr. I
Saraladevi PG (Smt)	Asst. Accounts Officer Sr. Gr.
Sheela Kumari R (Smt)	Asst. Accounts Officer (from 01.06.2018)
Johnson X (Sri)	Cashier Cum Receptionist Sr.Gr.
Vijayan S (Sri)	Office Assistant Sr. Gr.
Veena CL (Smt)	Office Assistant Sr. Gr.
Shajkumar KR (Sri)	Office Assistant Sr. Gr.
Girija Kumari LS (Smt)	Office Assistant Sr. Gr.
Nandakumaran T (Sri)	Office Assistant
Vindhya Sugathan (Smt)	Office Assistant
Pradeep Chandran (Sri)	Junior System Analyst
Prabhavathi Devi AK (Smt)	Clerk Gr. I

Ambili S (Smt)	Clerk Gr. I	Jaya TS (Smt)	Head Nurse Gr. I
Sheena Saju (Smt)	Cashier	Jikki M (Smt)	Head Nurse Gr. I
Sreejit S (Sri)	Clerk	Sheeba SV (Smt)	Head Nurse Gr. I
Aswathi Bai AL (Smt)	Clerk	Shobha S (Smt)	Head Nurse Gr. I
Information Systems		Vijaya AK (Smt)	Head Nurse Gr. I
Neelima N (Smt)	Systems Manager	Aniamma Joseph (Smt)	Head Nurse Gr. I
Rajesh P (Sri)	System Analyst	Shema C (Smt)	Head Nurse
Shaji J (Sri)	System Analyst	Sindhu S (Smt)	Head Nurse
Suseela Devi B (Smt)	Data Entry Operator Sel.Gr.	Saraswathy Amma P (Smt)	Head Nurse
Library & Information Services		Aleyamma Mathew (Smt)	Head Nurse
Vishnu V (Dr)	Librarian cum Information Officer Gr. I	Bensamma Varghese (Smt)	Head Nurse
Saji S Nair (Dr)	Assistant Librarian	Sindhu GS (Smt)	Head Nurse
Haseena K (Smt)	Library Assistant	Siva Kumari PR (Smt)	Head Nurse
Rahul LR (Sri)	Library Assistant	Elsamma Joseph (Smt)	Head Nurse
Ganga AP (Smt)	Clerk Gr. I	Indu VS (Smt)	Head Nurse
Balachandran KG (Sri)	Senior Helper	Ajitha TL (Smt)	Staff Nurse Sel.Gr.
Vijayakumaran Nair R (Sri)	Audio Visual Operator Gr. I	Anila Kumari S (Smt)	Staff Nurse Sel.Gr.
Jayasree R (Smt)	Helper	Indira Devi G (Smt)	Staff Nurse Sel.Gr.
Medical Oncology		Jessy Thomas (Smt)	Staff Nurse Sel.Gr.
Lali VS (Dr)	Resident Medical Officer Gr.I	Kumari Sindhu S (Smt)	Staff Nurse Sel.Gr.
Microbiology		Ranichandra V (Smt)	Staff Nurse Sel.Gr.
Kumar TN (Sri)	Lab Technician	Sajitha S (Smt)	Staff Nurse Sel.Gr.
Nuclear Medicine		Sherly M (Smt)	Staff Nurse Sel.Gr.
Joe D'Cruz A (Sri)	Technical Officer (Radiation)	Shijikumary NG (Smt)	Staff Nurse Sel.Gr.
Bindu B (Smt)	Technical Officer (RIA)	Suma PV (Smt)	Staff Nurse Sel.Gr.
Minyamma K (Smt)	Technical Officer (RIA)	Swapna CR (Smt)	Staff Nurse Sel.Gr.
Sindhu P (Smt)	Technical Officer (RIA)	Mareena Silas (Smt)	Staff Nurse Sel.Gr.
Sheeja S R (Smt)	Technical Officer	Sindhumol MG (Smt)	Staff Nurse Sel.Gr.
Sibi KS (Smt)	Radiation Technologist Sr. Gr.	Sophiya Lilly (Smt)	Staff Nurse Sel.Gr.
Sunitha S (Smt)	Radiation Technologist Sr. Gr.	Sindhu G (Smt)	Staff Nurse Sel.Gr.
Salini PS (Smt)	Radiation Technologist	Laly Joseph (Smt)	Staff Nurse Sel.Gr.
Jayakumar J (Sri)	Radiation Technologist	Mangalam S (Smt)	Staff Nurse Sel.Gr.
Chinju G (Smt)	Radiation Technologist	Chandrika P (Smt)	Staff Nurse Sr.Gr.
Deepthi Chandran (Smt)	Radiation Technologist	Ilin William (Smt)	Staff Nurse Sr.Gr.
Ananda Kumar K (Sri)	R I A Technician Sel Gr	Indulekha (Smt)	Staff Nurse Sr.Gr.
Usha R (Smt)	Data Entry Operator Gr.I	Marykutty Mathew (Smt)	Staff Nurse Sr.Gr.
Nursing Services		Rethidevi GS (Smt)	Staff Nurse Sr.Gr.
Sreelekha R (Smt)	Chief Nursing Officer	Abraham Shini (Smt)	Staff Nurse Sr.Gr.
Geetha S (Smt)	Nursing Supervisor	Ajitha S (Smt)	Staff Nurse Sr.Gr.
Sheela Rodriguez (Smt)	Nursing Supervisor	Anitha Kumary PV (Smt)	Staff Nurse Sr.Gr.
Geetha Kumari BS (Smt)	Nursing Supervisor	Bindhu M (Smt)	Staff Nurse Sr.Gr.
Prasanna Kumari S (Smt)	Head Nurse Sr. Gr.	Bini A (Smt)	Staff Nurse Sr.Gr.
Rajila Beegum (Smt)	Head Nurse Sr. Gr.	Binu O (Smt)	Staff Nurse Sr.Gr.
Sunitha Kumari R (Smt)	Head Nurse Sr. Gr.	Joby Paul (Smt)	Staff Nurse Sr.Gr.
Vijayalekshmy Ammal (Smt)	Head Nurse Sr. Gr.	Leemol Mathew (Smt)	Staff Nurse Sr.Gr.
		Moly MT (Smt)	Staff Nurse Sr.Gr.
		Rosamma Joseph (Smt)	Staff Nurse Sr.Gr.
		Nisha Vidyadhar R (Smt)	Staff Nurse Sr.Gr.

Sheeba P (Smt)	Staff Nurse Sr:Gr.	Jeeja Rajan (Smt)	Staff Nurse Gr. I
Jainamma Standal (Smt.)	Staff Nurse Sr:Gr.	Kavitha SG (Smt)	Staff Nurse Gr. I
Sheeja DB (Smt)	Staff Nurse Sr:Gr.	Kochuthresia PV (Smt)	Staff Nurse Gr. I
Sheeja Samuel (Smt)	Staff Nurse Sr:Gr.	Kumari Sobha D (Smt)	Staff Nurse Gr. I
Rajani RV (Smt)	Staff Nurse Sr:Gr.	Linsa George (Smt)	Staff Nurse Gr. I
Simmy Panicker S (Smt)	Staff Nurse Sr:Gr.	Manju VP (Smt)	Staff Nurse Gr. I
Sindhu K (Smt)	Staff Nurse Sr:Gr.	Preetha S (Smt)	Staff Nurse Gr. I
Aleyamma Chacko (Smt)	Staff Nurse Gr. I	Preethi PR (Smt)	Staff Nurse Gr. I
Bindhu PD (Smt)	Staff Nurse Gr. I	Priya KL (Smt)	Staff Nurse Gr. I
Geetha Kumari D (Smt)	Staff Nurse Gr. I	Rajesh Kumar S (Sri)	Staff Nurse Gr. I
Jyothilekshmi D (Smt)	Staff Nurse Gr. I	Rani Thomas (Smt)	Staff Nurse Gr. I
Sherry M (Smt)	Staff Nurse Gr. I	Preetha A (Smt)	Staff Nurse Gr. I
Shiny P Thankappan (Smt)	Staff Nurse Gr. I	Nisha K Thomas (Smt)	Staff Nurse Gr. I
Sindhu L (Smt)	Staff Nurse Gr. I	Maya SS (Smt)	Staff Nurse Gr. I
Sindhu V (Smt)	Staff Nurse Gr. I	Reena P Stanley (Smt)	Staff Nurse Gr. I
Sreeja AP (Smt)	Staff Nurse Gr. I	Remya R Chandran (Smt)	Staff Nurse Gr. I
Sreeja S (5233) (Smt)	Staff Nurse Gr. I	Roja S. Anand (Smt)	Staff Nurse Gr. I
Sreekala T (Smt)	Staff Nurse Gr. I	Saji GS (Smt)	Staff Nurse Gr. I
Sreekumaran Pillai V (Sri)	Staff Nurse Gr. I	Sandhya V. Nair (Smt)	Staff Nurse Gr. I
Sreelatha CS (Smt)	Staff Nurse Gr. I	Sandhyamol KS (Smt)	Staff Nurse Gr. I
Sukanya Kumari SR (Smt)	Staff Nurse Gr. I	Sangeetha KS (Smt)	Staff Nurse Gr. I
Lizy Varkey (Smt)	Staff Nurse Gr. I	Saritha SS (Smt)	Staff Nurse Gr. I
Sindhu G (Smt)	Staff Nurse Gr. I	Sheeba P. Varghese (Smt)	Staff Nurse Gr. I
Ajitha S (Smt)	Staff Nurse Gr. I	Sheeba VL (Smt)	Staff Nurse Gr. I
Amrutha L Raj (Smt)	Staff Nurse Gr. I	Suma V (Smt)	Staff Nurse Gr. I
Aneeta J. George (Smt)	Staff Nurse Gr. I (resigned on 22.03.2019)	Suma John (Smt)	Staff Nurse Gr. I
Annamma EJ (Smt)	Staff Nurse Gr. I	Suma K (Smt)	Staff Nurse Gr. I
Anupama B (Smt)	Staff Nurse Gr. I	Suma PS (Smt)	Staff Nurse Gr. I
Anupama Susmitha (Smt)	Staff Nurse Gr. I	Suni Mathew (Smt)	Staff Nurse Gr. I
Archana M. Nair (Smt)	Staff Nurse Gr. I	Sunitha L (Smt)	Staff Nurse Gr. I
Ariya Sreedharan B (Smt)	Staff Nurse Gr. I	Swopna K (Smt)	Staff Nurse Gr. I
Aswathy MR (Smt)	Staff Nurse Gr. I	Thara SS (Smt)	Staff Nurse Gr. I
Beena KG (Smt)	Staff Nurse Gr. I	Vasanthakumari R (Smt)	Staff Nurse Gr. I
Bency Varghese (Smt)	Staff Nurse Gr. I	Ambika T B (Smt)	Staff Nurse Gr. I
Biji PR (Smt)	Staff Nurse Gr. I	Nisha KN (Smt)	Staff Nurse Gr. I
Bincy Lukose (Smt)	Staff Nurse Gr. I	Abdul Jaseer E (Sri)	Staff Nurse
Bindhu Rani PV (Smt)	Staff Nurse Gr. I	Aradhana S (Smt)	Staff Nurse
Bindu Kumari TC (Smt)	Staff Nurse Gr. I	Bajjudeen B (Sri)	Staff Nurse
Bini R (Smt)	Staff Nurse Gr. I	Bindhu KG (Smt)	Staff Nurse
Cherupushpam M (Smt)	Staff Nurse Gr. I	Bindu B (Smt)	Staff Nurse
Chithra VG (Smt)	Staff Nurse Gr. I	Daisy A (Smt)	Staff Nurse
Deepa R (Smt)	Staff Nurse Gr. I	Deepa AS (Smt)	Staff Nurse
Divya Das S (Smt)	Staff Nurse Gr. I	Deepa TP (Smt)	Staff Nurse
Girija L (Smt)	Staff Nurse Gr. I	Ducakis S (Smt)	Staff Nurse
Gracy Sebastian (Smt)	Staff Nurse Gr. I	Fathima S (Smt)	Staff Nurse
Jayasree CG (Smt)	Staff Nurse Gr. I	Fathima Suhra M (Smt)	Staff Nurse
		Georgia George (Smt)	Staff Nurse

Gigi Mol Chacko (Smt)	Staff Nurse	Sumam L (Smt)	Staff Nurse
Irshad AP (Sri)	Staff Nurse	Sumathy P (Smt)	Staff Nurse
Jaichitra MV (Smt)	Staff Nurse	Sithara Balakrishnan (Smt)	Staff Nurse
Jasna PK (Smt)	Staff Nurse	Archana CS (Smt)	Staff Nurse
Jesna R (Smt)	Staff Nurse	Sahiya VV (Smt)	Staff Nurse
Jijimol S J (Smt)	Staff Nurse	Jafna N (Smt)	Staff Nurse
Julie Mariam Jacob (Smt)	Staff Nurse	Arathy SR (Smt)	Staff Nurse
Karthika Raj KS (Smt)	Staff Nurse	Aparna A (Smt)	Staff Nurse
Ligi Das RS (Smt)	Staff Nurse	Manju Punnen (Smt)	Staff Nurse
Lija K (Smt)	Staff Nurse	Reshmi V P K (Smt)	Staff Nurse
Preetha Thomas (Smt)	Staff Nurse	Neetha Abraham (Smt)	Staff Nurse
Rajaram SK (Sri)	Staff Nurse	Ajith Clement C (Sri)	Staff Nurse
Raji KR (Smt)	Staff Nurse	Resmi VR (Smt)	Staff Nurse
Manjusha GS (Smt)	Staff Nurse	Gayathri Devi KS (Smt)	Staff Nurse
Manoj GS (Sri)	Staff Nurse	Keerthy MS (Smt)	Staff Nurse
Maya N. Nair (Smt)	Staff Nurse	Lekshmi P. Nair (Smt)	Staff Nurse
Mayadevi L (Smt)	Staff Nurse	Asha A (Smt)	Staff Nurse
Niza A. Khalam (Smt)	Staff Nurse	Harish Nair M (Sri)	Staff Nurse
Preeja S (Smt)	Staff Nurse	Manju VM (Smt)	Staff Nurse (resigned on 23.03.2019)
Preetha P. Nair (Smt)	Staff Nurse	Divya Pauly (Smt)	Staff Nurse
Rashid EK (Sri)	Staff Nurse	Bismi NS (Smt)	Staff Nurse
Reena A (Smt)	Staff Nurse	Likha Prasad (Smt)	Staff Nurse
Rejani Mole A (Smt)	Staff Nurse	Jamsheena EM (Smt)	Staff Nurse
Renjini RS (Smt)	Staff Nurse	Aswathy S (Smt)	Staff Nurse
Renjini SR (Smt)	Staff Nurse	Rosamma PT (Smt)	Staff Nurse
Resmi V (Smt)	Staff Nurse	Ajeesh K (Sri)	Staff Nurse
Rugmini MD (Smt)	Staff Nurse	Dhanya Krishnan MG (Smt)	Staff Nurse
Saloma PS (Smt)	Staff Nurse	Soumya TL (Smt)	Staff Nurse
Sandhya G (Smt)	Staff Nurse	Abhilash Michael (Sri)	Staff Nurse
Shabeerali K (Sri)	Staff Nurse (resigned on 19.12.2018)	Aishwarya PG (Smt)	Staff Nurse
Sharmi N (Smt)	Staff Nurse (resigned on 29.09.2018)	Vishnu Prasad VS (Sri)	Staff Nurse
Sheeja BT (Smt)	Staff Nurse	Arya P (Smt)	Staff Nurse
Sheeja H (Smt)	Staff Nurse	Biyas SB (Sri)	Staff Nurse (resigned on 16.04.2018)
Sheeja Kumari G (Smt)	Staff Nurse	Joseph Jennings MM (Sri)	Staff Nurse (resigned on 18.03.2018)
Shijitha KS (Smt)	Staff Nurse	Binson Baby (Sri)	Staff Nurse
Shiny George (Smt)	Staff Nurse	Sajisha ES (Smt)	Staff Nurse
Sindhu P 5377 (Smt)	Staff Nurse	Sandhya Rapheal (Smt)	Staff Nurse
Sindhu P. Nair (Smt)	Staff Nurse	Dhanya AS (Smt)	Staff Nurse
Sindhu R (Smt)	Staff Nurse	Shiyas SR (Sri)	Staff Nurse
Smitha S. Nair (Smt)	Staff Nurse	Kavitha GS (Smt)	Staff Nurse
Soni John (Smt)	Staff Nurse	Mohammad Sajin N (Sri)	Staff Nurse
Sreeja MS (Smt)	Staff Nurse	Ashwathi JC (Smt)	Staff Nurse
Sreekala NS (Smt)	Staff Nurse	Laiby V. Elizabeth (Smt)	Staff Nurse
Sreekala P (Smt)	Staff Nurse	Kavitha Mohan L (Smt)	Staff Nurse
Sreelekha S (Smt)	Staff Nurse	Geethu Karun (Smt)	Staff Nurse
		Keerthi R. Pillai (Smt)	Staff Nurse
		Tania Raj K (Smt)	Staff Nurse
		Bibin K. Mathew (Sri)	Staff Nurse

Neelima G (Smt)	Staff Nurse	Amitha S (Smt)	Staff Nurse
Anu Priya VM (Smt)	Staff Nurse	Nada K (Smt)	Staff Nurse
Asha S (Smt)	Staff Nurse	Jesly Kurian P (Smt)	Staff Nurse
Divya VJ (Smt)	Staff Nurse	Anisha S (Smt)	Staff Nurse
Neethu Sasi (Smt)	Staff Nurse	Jubilet Malar C (Smt)	Nursing Assistant
Susan John (Smt)	Staff Nurse	Sreekumari N (Smt)	Nursing Assistant
Sajitha S (Smt)	Staff Nurse	Kumari Sindhu TS (Smt)	Nursing Assistant
Pratheeksha R (Smt)	Staff Nurse	Sheela M (Smt)	Nursing Assistant
Sajana K. Badusha (Smt)	Staff Nurse	Mini AK (Smt)	Nursing Assistant
Riti Merin Abraham (Smt)	Staff Nurse	Jessy Thomas (Smt)	Nursing Assistant
Ansha P. Jyothy (Smt)	Staff Nurse	Varghese Thomas (Sri)	Nursing Assistant
Lekshmi Mohan (Smt)	Staff Nurse	Deenamma MJ (Smt)	Nursing Assistant
Anu KS (Smt)	Staff Nurse	Sunila RS (Smt)	Nursing Assistant
Preetha B (Smt)	Staff Nurse	Smitha D (Smt)	Nursing Assistant
Sankar MG (Smt)	Staff Nurse	Ambily TK (Smt)	Nursing Assistant
Gireeshkumar S (Sri)	Staff Nurse	Kumari Prameela RG (Smt)	Nursing Assistant
Salini VP (Smt)	Staff Nurse (resigned on 14.06.2018)	Sheeja Rani G (Smt)	Nursing Assistant
Anu K. Avirah (Smt)	Staff Nurse	Usha L (Smt)	Nursing Assistant
Remya KB (Smt)	Staff Nurse	Jaya Kumari R (Smt)	Nursing Assistant
Mini MS (Smt)	Staff Nurse	Reeja AS (Smt)	Nursing Assistant
Shinoj P (Sri)	Staff Nurse	Sreekumari M (Smt)	Nursing Assistant
Soumya CS (Smt)	Staff Nurse	Jessy Xavier (Smt)	Nursing Assistant
Aparna J (Smt)	Staff Nurse	Subhadra TK (Smt)	Nursing Assistant
Midhun Raj PT (Sri)	Staff Nurse	Hendit Florin SD (Smt)	Nursing Assistant
Shafna Ashraff (Smt)	Staff Nurse	Mary Helen S (Smt)	Nursing Assistant
Abhilash P (Sri)	Staff Nurse	Deepthi SS (Smt)	Nursing Assistant
Shameer AM (Sri)	Staff Nurse	Sherly PK (Smt)	Nursing Assistant
Praveena U (Smt)	Staff Nurse	Rema K (Smt)	Nursing Assistant
Deepa M (Smt)	Staff Nurse	Felcy Jesslet A (Smt)	Nursing Assistant
Atheena Jinu AJ (Smt)	Staff Nurse	Ambika V (Smt)	Nursing Assistant
Lekshmy MS (Smt)	Staff Nurse	Bigimol Dominic (Smt)	Nursing Assistant
Rosily Thomas (Smt)	Staff Nurse	Shaija K (Smt)	Nursing Assistant
Juby Baby (Smt)	Staff Nurse	Geetha S (Smt)	Nursing Assistant
Mukesh M (Sri)	Staff Nurse	Sneha Latha S (Smt)	Nursing Assistant
Ansa AR (Smt)	Staff Nurse	Suja Kuruvilla (Smt)	Nursing Assistant
Suby A (Smt)	Staff Nurse	Laly VJ (Smt)	Nursing Assistant
Anju Krishnan (Smt)	Staff Nurse	Suja V (Smt)	Nursing Assistant
Sajeena B (Smt)	Staff Nurse	Sajini John (Smt)	Nursing Assistant
Anila Mohan (Smt)	Staff Nurse	Jessy Philipose (Smt)	Nursing Assistant
Binila TA (Smt)	Staff Nurse	Shyni John (Smt)	Nursing Assistant
Asha Prakash (Smt)	Staff Nurse	Sheeba PK (Smt)	Nursing Assistant
Aswathy Raj R (Smt)	Staff Nurse	Priya S (Smt)	Nursing Assistant
Anjaly VN (Smt)	Staff Nurse	Sudha S (Smt)	Nursing Assistant
Aneesh Kumar RP (Sri)	Staff Nurse	Bindu AB (Smt)	Nursing Assistant
Seema MB (Smt)	Staff Nurse	Sithalekshmi VS (Smt)	Nursing Assistant
Syama MG (Smt)	Staff Nurse	Mariamamma Joseph (Smt)	Nursing Assistant
Salini Krishnan SK (Smt)	Staff Nurse	Geetha PK (Smt)	Nursing Assistant
Remya RB (Smt)	Staff Nurse	Bindhu S (Smt)	Nursing Assistant

Sali Varughese (Smt)	Nursing Assistant	Premaletha OT (Smt)	Cleaner
Manju I (Smt)	Nursing Assistant	Pushpa T (Smt)	Cleaner
Babitha Beegam R (Smt)	Nursing Assistant	Pushpakumari P (Smt)	Cleaner
Sunitha Devi RR (Smt)	Nursing Assistant	Rajalakshmy R (Smt)	Cleaner
Ranjini R (Smt)	Nursing Assistant	Raheela N (Smt)	Cleaner
Manju C (Smt)	Nursing Assistant	Rajeswari L (Smt)	Cleaner
Jayasree S (Smt)	Nursing Assistant	Remadevi R (Smt)	Cleaner
Sheeba L (Smt)	Nursing Assistant	Remany R (Smt)	Cleaner
Subha Moly O (Smt)	Nursing Assistant	Sarojam D (Smt)	Cleaner
Sujakumari L (Smt)	Nursing Assistant	Sarojam T (Smt)	Cleaner
Sreelatha S (Smt)	Nursing Assistant	Sasikala P (Smt)	Cleaner
Manjusha V (Smt)	Nursing Assistant	Sailaja A (Smt)	Cleaner
Sheeja R (Smt)	Nursing Assistant	Sobhana S (Smt)-2200	Cleaner
Kala L. K. Nair (Smt)	Nursing Assistant	Sobhana S (Smt)-2218	Cleaner
Sandhyakrishnan L (Smt)	Nursing Assistant	Sreelatha P (Smt)	Cleaner
Sheeja Raj (Smt)	Nursing Assistant	Stalin Bright N (Sri)	Cleaner
Sari AS (Smt)	Nursing Assistant	Subhashini K (Smt)	Cleaner
Darley Grace AE (Smt)	Nursing Assistant	Sukumary L (Smt)	Cleaner
Minimol SS (Smt)	Nursing Assistant	Suma L (Smt)	Cleaner
Sajitha A (Smt)	Nursing Assistant	Sunilkumar G (Sri)	Cleaner
Mini J (Smt)	Nursing Assistant	Sureshkumar K (Sri)	Cleaner
Arun AK (Sri)	Nursing Assistant	Syamalakumari S (Smt)	Cleaner
Nagammal R (Smt)	Nursing Assistant	Thanky S (Smt)	Cleaner
Roslet Titus S(Smt)	Nursing Assistant	Thulasi P (Smt)	Cleaner
Faseela Beevi H (Smt)	Nursing Assistant	Valsala P (Smt)	Cleaner
Chithra C (Smt)	Nursing Assistant	Valsala TK (Smt)	Cleaner
Saritha SS (Smt)	Nursing Assistant	Vijayakumar S (Sri)	Cleaner
Renuka VC (Smt)	Nursing Assistant		
Manju K (Smt)	Nursing Assistant	Palliative Medicine	
Sheena C (Smt)	Nursing Assistant	Prasanth CV (Dr)	Resident Medical Officer
Sunitha M (Smt)	Nursing Assistant	Manju Achamma Varghese (Dr)	Resident Medical Officer
Archana VS (Smt)	Nursing Assistant	Dennison G (Sri)	Manufacturing Chemist
Anitha V(Smt)	Cleaner	Sanal AD (Sri)	Skilled Worker
Chandramathi Amma S (Smt)	Cleaner		
Chandrasekharan Nair M (Sri)	Cleaner	Pathology	
Ebsiba D (Smt)	Cleaner	Nataraj A (Sri)	Technical Officer (Lab)
Geethakumari K(Smt)	Cleaner	Brinda TP (Smt)	Technical Officer (Lab)
Girija S (Smt)	Cleaner	Saina A (Smt)	Technical Officer (Lab)
Gopakumar P (Sri)	Cleaner	Sulochana S (Smt)	Technical Officer (Lab)
Jayanthi D (Smt)	Cleaner	Veena VS (Smt)	Cytotechnologist Sel.Gr.
Kala Krishnan (Smt)	Cleaner	Jayalal KS (Sri)	Cytotechnologist Sel.Gr.
Kaladevi B (Smt)	Cleaner	Mani KS (Sri)	Cytotechnologist Sel.Gr.
Radha S (Lathika S) (Smt)	Cleaner	Anitha S (Smt)	Cytotechnologist Sr. Gr.
Lethakumari K (Smt)	Cleaner	Lathamalathy L (Smt)	Lab.Technician Sel.Gr.
Moly B (Smt)	Cleaner	Jayasree PS (Smt)	Lab.Technician Sel.Gr.
Pradeep A (Sri)	Cleaner	Jiju JS (Sri)	Lab.Technician Sel.Gr.
Prasanna S (Smt)	Cleaner	Arya CS (Smt)	Lab.Technician (joined 27.12.2018)
		Rejitha VS (Smt)	Data Entry Operator
		Sheena Rani GS (Smt)	Typist

Krishnankutty R (Sri)	Senior Helper
Pharmacy & Store	
Suresh G (Sri)	Stores Officer
Dinesh PS (Sri)	Pharmacist Gr. I
Shaji SS (Sri)	Pharmacist
Mini KL (Smt)	Pharmacist
Krishnapriya V (Smt)	Pharmacist
Saritha SS (Smt)	Pharmacist
Jalaja Kumari VS (Smt)	Pharmacist
Sreeja T. Nair (Smt)	Pharmacist (joined 18.06.2018)
Vimal Kumar YS (Sri)	Helper

Project Cell

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

Purchase

Ramaprasad P (Sri)	Assistant Purchase Officer
Ajitha OS (Smt)	Office Assistant Sr. Gr.
John Joseph (Sri)	Office Assistant Gr. I
Vijayaprasad B (Sri)	Office Assistant
Sheeja SS (Smt)	Office Assistant
Jayaprakash V (Sri)	Clerk

Radiation Physics

Ramabhadran P (Sri)	Technical Officer (Radiation)
Anitha C (Smt)	Technical Officer (Radiation)
Radhakrishnan Nair T (Sri)	Technical Officer (Radiation)
Sherif J S (Sri)	Technical Officer (Radiation)
Sreekala R (Smt)	Technical Officer (Radiation)
Sreekala D (Smt)	Technical Officer (Mould)
Geethamma K (Smt)	Technical Officer (Radiation)
Sunil Kumar S (Sri)	Technical Officer (Radiation)
Sheeba DR (Smt)	Technical Officer (Radiation) (under suspension w.e.f. 19.04.2018)
Premeela Devi T (Smt)	Technical Officer (Radiation)
Jayasree CG (Smt)	Technical Officer (Radiation)
Ambily Govind K (Smt)	Technical Officer
Geetha P (Smt)	Technical Officer
Santhan H (Sri)	Technical Officer
Vidduil Latha PA (Smt)	Technical Officer
Maheswari J (Smt)	Technical Officer
Rojas K. Jose	Medical Physicist
Midhun Sajeev (Sri)	Medical Physicist
Deepa MV (Smt)	Medical Physicist
Mini VL (Smt)	Radiotherapy Technologist Sel.Gr.
Rajesh PR (Sri)	Radiotherapy Technologist Sel.Gr.
Sindhu SS (Smt)	Radiotherapy Technologist Sel.Gr.
Saritha VS (Smt)	Radiotherapy Technologist Sel.Gr.

Sunitha Kumari UP (Smt)	Radiotherapy Technologist Sr.Gr.
Abhilash Sudh SS (Sri)	Radiotherapy Technologist Sr.Gr.
Asa Rani KS (Smt)	Radiotherapy Technologist Sr.Gr.
Lal K Nair (Sri)	Radiotherapy Technologist Sr.Gr.
Manju PM (Smt)	Radiotherapy Technologist Sr.Gr.
Maya M (Smt)	Radiotherapy Technologist Sr.Gr.
Seena CS (Smt)	Radiotherapy Technologist Sr.Gr.
Sheena J (Smt)	Radiotherapy Technologist Sr.Gr.
Shinu RS (Sri)	Radiotherapy Technologist Sr.Gr.
Vinod SL (Sri)	Radiotherapy Technologist Sr.Gr.

Radiodiagnosis

Sathyalekha SI (Smt)	Technical Officer (Radiation)
Shailesh Kumar KN (Sri)	Technical Officer (Radiation)
Udayakumar KR (Sri)	Technical Officer (Radiation)
Pradeep S (Sri)	Technical Officer (Radiation)
Suja BR (Smt)	Technical Officer (Radiation)
Prasad PP (Sri)	Technical Officer
Asha S (Smt)	Radiation Technologist Sr.Gr.
Binoy BG (Sri)	Radiation Technologist Sr.Gr.
Jayakumar P (Sri)	Radiation Technologist Sr.Gr.
Sreelekha LD (Smt)	Radiation Technologist Sr.Gr.
Veena RR (Smt)	Radiation Technologist Sr.Gr.
Anees KN (Sri)	Radiation Technologist
Chitrakleekha AR (smt)	Radiation Technologist
Saritha BS (Smt)	Radiation Technologist (joined 06.07.2018)
Basil Varghese (Sri)	Junior System Analyst
Santhosh Kumar C S (Sri)	Hospital Assistant

Security

Satheeshkumar KS (Sri)	Tel.Operator cum Receptionist Gr. I
Sreekumar C (Sri)	Tel.Operator cum Receptionist
Sukumaran Nair R (Sri)	Security Guard
Ajikumar SL (Sri)	Security Guard

Supporting Services

Surendran Nair V (Sri)	Public Relations Officer Sr. Gr.
Mini N (Smt)	Dietician Sr. Gr.
Krishna Mohandas (Smt)	Assistant Dietician

Surgical Services

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

Transfusion Medicine

Rajesh R. Chandran (Dr)	Resident Medical Officer
Renukadevi V (Smt)	Technical Officer
Bindu AP (Smt)	Scientific Assistant

Asha SR (Smt) Lab.Technician Sel.Gr.
Mini SP (Smt) Lab.Technician Sel.Gr.

e. Dismissals/Retrenchments: Nil

f. Retirements

Dr. K. Ramachandran	Professor (30.04.2018)
Usha V (Smt)	Data Entry Operator Sel Gr (30.04.2018)
Louis TC (Sri)	Hospital Assistant (30.04.2018)
Beena N (Smt)	Asst. Accounts Officer S Gr (31.05.2018)
Sheela V (Smt)	Technical Officer (31.05.2018)
Ajith Kumar M (Sri)	Security Guard (31.05.2018)
Pradeepkumar B (Sri)	Clerk Sr Gr (31.05.2018)
Suliman S (Sri)	Hospital Assistant (31.05.2018)
Dr. Paul Sebastian	Director (24.08.2018)
Lizyamma Jacob (Smt)	Nursing Supervisor (31.08.2018)
Gopakumar B (Sri)	Security Guard (31.10.2018)
Dr. P.T. Latha (Smt)	Associate Professor (31.11.2018)
Najeeya S (Smt)	Technical Officer (30.11.2018)
Balachandran L (Sri)	Hospital Assistant (30.11.2018)
Gangadevi C (Smt)	Technical Officer (28.02.2019)
Vikraman Chettiar (Sri)	Sergeant (28.02.2019)
Sally Abraham (Smt)	Nursing Supervisor Gr I (31.03.2019)
Nazaruddin S (Sri)	Driver Gr I (31.03.2019)
Radha R (Smt)	Cleaner (31.03.2019)
Vanajakumari P (Smt)	Cleaner (31.03.2019)

g. Obituary:

Vijayakumar C (Sri) Hospital Attender

Standing Committees

a. Scientific Committee

1. Dr. Asha Kishore
Director, SCTIMST,
Thiruvananthapuram Chairperson
2. Dr. Paul Sebastian (till 24.08.2018)
Director, RCC,
Thiruvananthapuram Alternate Chairman
3. Dr. Rekha A. Nair (from 15.10.2018)
Director, RCC,
Thiruvananthapuram Alternate Chairperson
4. Dr. G.K. Rath
Chief, BRA-IRCH, AIIMS, New Delhi Member
5. Dr. Rajendra A. Badwe
Director, Tata Memorial Centre, Mumbai Member

6. Dr. M. Vijayakumar
Director, Kidwai Memorial Institute of Oncology,
Bengaluru Member
7. Dr. M. Radhakrishna Pillai
Director, Rajiv Gandhi Centre for Biotechnology
Thiruvananthapuram Member
8. Dr. T. Rajkumar
Prof. and Head, Dept. of Molecular Oncology,
Cancer Institute (WIA), Chennai Member
9. Dr. Nirmala A. Jambhedkar
Prof. & Head, Dept. of Pathology,
Tata Memorial Centre Mumbai Member
10. Dr. Meenu Hariharan (till 17.04.2018)
Director of Medical Education (Retired),
Thiruvananthapuram Member
11. Dr. K. Ramadas,
Prof. & Head, Dept. Radiation Oncology
Regional Cancer Centre,
Thiruvananthapuram Convener

b. Institutional Review Board

1. Dr. Paul Sebastian (till 24.08.2018)
Director, RCC, Thiruvananthapuram Chairman
2. Dr. Rekha A. Nair (from 15.10.2018)
Director, RCC, Thiruvananthapuram Chairperson
3. Dr. K. Ramadas
Prof. & Head, Dept. Radiation Oncology
RCC, Thiruvananthapuram Vice Chairman
4. Dr. Francis V. James,
Professor, Dept. of Radiation Oncology,
RCC, Thiruvananthapuram Member
5. Dr. Rachel Cherian Koshy,
Professor & Head, Dept. of Anaesthesiology,
RCC, Thiruvananthapuram Member
6. Dr. Priyakumari T,
Professor and Head, Dept. of Paediatric Oncology,
RCC, Thiruvananthapuram Member
7. Dr. Shaji Thomas,
Additional Professor & Head,
Dept. of Surgical Services,
RCC, Thiruvananthapuram Member
8. Dr. K. Jayasree,
Professor & Head, Dept. of Pathology,
RCC, Thiruvananthapuram Member
9. Dr. Venugopal M,
Professor & Head, Dept. of Radiodiagnosis,
RCC, Thiruvananthapuram Member
10. Dr. S. Kannan,

- Professor & Head, Division of Cancer Research,
RCC, Thiruvananthapuram Member
11. Dr. Beela Sarah Mathew,
Professor, Dept. of Radiation Oncology,
RCC, Thiruvananthapuram Member
12. Dr. Aleyamma Mathew,
Professor & Head, Division of Cancer
Epidemiology & Biostatistics,
RCC, Thiruvananthapuram Convener

c. Ethics Committee

1. Dr. M. Narendranathan,
'Sreenilayam', Veerabhadra Gardens,
Pottakuzhi, Pattom P.O.,
Thiruvananthapuram. Chairman
2. Dr. V. Ramankutty,
Professor, Achuthamenon Centre,
SCTIMST, Thiruvananthapuram. Member
3. Dr. Jayasree RS,
Scientist, BMT Wing, SCTIMST
Poojappura, Thiruvananthapuram Member
4. Dr. K.G. Retnavally,
'Lekshmi', House No. 59,
Vrindavan Housing Colony,
Pattom, Thiruvananthapuram. Member
5. Adv. Krishnankutty Nair,
'Arathy', T.C. 17/28, JERA- 21,
Jagathy, Thiruvananthapuram. Member
6. Sri. K.T. Cherian Panicker
Panikkaru Veetil, Soubhagya Lane,
Keeriserri, Nalanchira,
Thiruvananthapuram Member
7. Dr. Sajeev V. Thomas,
Professor of Neurology, Sree Chitra Tirunal
Institute for Science & Technology,
Thiruvananthapuram Member
8. Dr. Iqbal Ahamed M,
52, Kedaram Nagar, Pattom PO,
Thiruvananthapuram. Member
9. Dr. N. Geetha,
Professor & Head, Dept. of Medical Oncology,
RCC, Thiruvananthapuram Member
10. Fr. Shoji Vechoorkarottu,
St. Aloysius Minor Seminary,
Cheshire Home Lane, Kuravankonam,
Kowdiar Post, Thiruvananthapuram Member
11. Smt. Jessy Susan Philip,
D1, Cliff Valley, TC 4/1458,

- Kavu Road, Kowdiar P.O.,
Thiruvananthapuram Member
12. Dr. Francis V. James,
Professor, Dept. of Radiation Oncology,
RCC, Thiruvananthapuram Convener

d. Building Committee

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

e. Medical Record Review Committee

1. Dr. Beela Sarah Mathew,
Prof. of Radiation Oncology
(till 23.10.2018) Chairperson
2. Dr. Sajeed A,
Medical Superintendent
(from 24.10.2018) Chairman
3. Dr. K. Ramadas,
Head, Dept. of Radiation Oncology Member
4. Dr. Beela Sarah Mathew,
Prof. of Radiation Oncology Member
5. Dr. M. Venugopal,
Head, Dept. of Radiodiagnosis Member
6. Dr. T. Priyakumary,
Head, Dept. of Paediatric Oncology Member
7. Dr. Shaji Thomas,
Head, Dept. of Surgical Services Member
8. Dr. V.M. Pradeep,
Head, Nuclear Medicine Division Member
9. Dr. Geetha N,
Head, Dept. of Medical Oncology Member
10. Dr. Cheriyan Koshy,
Head, Palliative Medicine Division Member
11. Dr. R. Rejnish Kumar,
Additional Professor,
Dept. of Radiation Oncology Member
12. Smt. Sreelekha R,

Chief Nursing Officer	Member
13. Sri. Anilkumar K, Medical Records Officer-II	Member
14. Smt. Chandrika D, Medical Records Officer-I	Convener

f. Hospital Infection Control Committee

1. Dr. K. Ramadas, Head, Dept of Radiation Oncology	Chairman
2. Dr. Beela Sarah Mathew, Medical Superintendent (till 12.08.2018)	Member
3. Dr. R. Rejinish Kumar, Medical Superintendent (till 23.10.2018)	Member
4. Dr. Sajeed A, Medical Superintendent (from 24.10.2018)	Member
5. Dr. K. Jayasree, Head, Dept of Pathology	Member
6. Dr.T. Priyakumary, Head, Dept of Paediatric Oncology	Member
7. Dr. Rachel Cherian Koshy, Head, Dept of Anaesthesiology	Member
8. Dr. Geetha N, Head, Dept of Medical Oncology	Member
9. Dr. Shaji Thomas, Head, Dept of Surgical Services	Member
10. Dr. Cherian Koshy, Head, Palliative Medicine Division	Member
11. Dr. Binitha R, Assistant Professor, Paediatric Oncology & Infection Control Doctor	Member
12. Dr. K.Vijayalekshmi, Head, Transfusion Medicine Division	Member
13. Dr. Swapna R. Nath, Head, Microbiology & Infection Control Officer	Member
14. Dr. Raveendran Pillai K, Officer i/c, Clinical Laboratory Services	Member
15. Smt. Sreelekha R, Chief Nursing Officer	Member
16. Sri. Giri Purushothaman, Head (I/C), Engineering Division	Member
17. Smt. Indhu, Head Nurse Operation Theatre	Member
18. Smt. Gracy George, Head Nurse, In Charge Laundry	Member
19. Sri. P. Ramaprasad, Assistant Purchase Officer	Member

20. Smt. Shyma K Babu, Biomedical Engineer	Member
21. Smt. Bindhu Rani, Infection Control Nurse	Member
22. Smt. Arya Sreedharan, Infection Control Nurse	Member
23. Smt. Rajani R V, NABH Co-ordinator	Member
24. Smt. Sheela Rodriguez, Nursing Supervisor	Convener

g. Internal Audit Committee

1. Dr. Paul Augustine, Additional Professor, Dept. of Surgical Services	Chairman
2. Dr. K. Ramadas, Head, Dept. of Radiation Oncology	Member
3. Dr. Beela Sarah Mathew, Professor, Dept. of Radiation Oncology	Member
4. Dr.T. Priyakumary, Head, Dept. of Paediatric Oncology	Member
5. Dr. Cherian Koshy, Head, Palliative Medicine Division	Member
6. Dr. Anila K R, Associate Professor, Dept. of Pathology	Member
7. Dr. Madhu Muralee, Additional Professor, Dept. of Surgical Services	Member
8. Dr. Roshni S, Associate Professor, Dept. of Radiation Oncology	Member
9. Dr. Saju B, Additional Professor, Radiation Physics Division	Member
10. Dr. Sudha P, Additional Professor, Dept. of Anaesthesiology	Member
11. Dr. Sumod Mathew Koshy, Associate Professor, Dept. of Radiodiagnosis	Member
12. Dr. Swapna R. Nath, Head, Microbiology Division	Member
13. Dr. Rajeev K R, Assistant Professor, Dept. of Radiation Oncology	Member
14. Dr. Arun Sankar, Associate Professor, Dept. of Radiation Oncology	Member

15. Dr. Malu Rafi, Assistant Professor, Dept. of Radiation Oncology	Member	Head, Nuclear Medicine Division	Member
16. Dr. Priya Mary Jacob, Assistant Professor, Dept. of Pathology	Member	10. Dr. Ramani S. Wesley, Head, Community Oncology Division	Member
17. Dr. Sivaranjith, Assistant Professor, Dept. of Surgical Services	Member	11. Dr. K. Jayasree, Head, Dept of Pathology	Member
18. Dr. Deepthi Prabhu, Assistant Professor, Dept. of Anaesthesiology	Member	12. Dr. Cherian Koshy, Head, Palliative Medicine Division	Member
19. Dr. Lijeesh, Assistant Professor, Dept. of Radiation Oncology	Member	13. Dr. K.Vijayalekshmi, Head, Transfusion Medicine Division	Member
20. Smt. Lalitha B, Assistant Administrative Officer	Member	14. Dr. Swapna R. Nath, Head, Microbiology Division	Member
21. Smt. Chandrika D, Medical Records Officer- I	Member	15. Dr. Raghukumar, Head, Radiation Physics Division	Member
22. Smt. Sreelekha R, Chief Nursing Officer	Member	16. Dr. Aleyamma Mathew, Head, Cancer Epidemiology & Biostatistics Division	Member
23. Sri. Prasad P P, Technical Officer	Member	17. Dr. Raveendran Pillai, Officer i/c, Clinical Laboratory Services	Member
24. Smt. Sini L S, Lab Technician	Member	18. Smt. Sreelekha R, Chief Nursing Officer	Member
25. Smt. Bindu Rani P V, Infection Control Nurse	Member	19. Sri. Giri Purushothaman, Head I/C, Engineering Division	Member
26. Smt. Mini N, Dietician	Member	20. Sri. Surendran Nair V, Public Relation Officer	Member
27. Smt. Shyma Babu, Biomedical engineer	Member	21. Smt. Lalitha B, Assistant Administrative Officer	Member
28. Smt. Sivakumari, Head Nurse	Member	22. Smt. Chandrika D, Medical Records Officer- I	Member
29. Dr. Aswin Kumar, Quality & Safety Officer	Convener	23. Sri. Sreekumar B, Assistant Administrative Officer (CS)	Member
h. Quality Improvement Committee		24. Smt. Sheela Rodriguez Infection Control Convener	Member
1. Dr. Paul Sebastian, Director (till 24.08.2018)	Chairman	25. Smt. Mini N, Dietician	Member
2. Dr. Rekha A. Nair, Director (from 15.10.2018)	Chairperson	26. Dr.K. Ramadas, Head, Dept of Radiation Oncology (till 23.10.2018)	Convener
3. Dr.T. Priyakumary, Head, Dept. of Paediatric Oncology	Member	27. Dr. Sajeed A, Medical Superintendent (from 24.10.2018)	Convener
4. Dr. K. Ramadas, Head, Dept. of Radiation Oncology	Member		
5. Dr. Rachel Cherian Koshy, Head, Dept. of Anaesthesiology	Member	i. Drug Committee	
6. Dr. Geetha N, Head, Dept. of Medical Oncology	Member	1. Dr.K. Ramadas, Head, Dept. of Radiation Oncology (till 23.10.2018)	Chairman
7. Dr. Shaji Thomas, Head, Dept. of Surgical Services	Member	2. Dr. Sajeed A, Medical Superintendent (from 24.10.2018)	Chairman
8. Dr. M.Venugopal, Head, Dept. of Radiodiagnosis	Member		
9. Dr.V.M. Pradeep,			

3. Dr.K. Ramadas, Head, Dept. of Radiation Oncology	Member	9. Dr. Cherian Koshy, Head, Palliative Medicine Division	Member
4. Dr.T. Priyakumaruy, Head, Dept. of Paediatric Oncology	Member	10. Dr Rajesh, RMO, Transfusion Medicine	Member
5. Dr. Francis V. James, Professor of Radiation Oncology	Member	11. Smt. Sreelekha R, Chief Nursing Officer	Member
6. Dr. Sivanandan C D, Additional Professor of Radiation Oncology	Member	12. Smt. Bindu, Scientific Officer, Transfusion Medicine	Member
7. Dr. R. Rejnishkumar, Additional Professor of Radiation Oncology	Member	13. Dr. K.Vijayalekshmi, Head, Transfusion Medicine Division	Convener
8. Dr. Rachel Cherian Koshy, Head, Dept. of Anaesthesiology	Member	k. Hospital Safety Committee	
9. Dr. Geetha N, Head, Dept. of Medical Oncology	Member	1. Dr. Paul Sebastian, Director (till 24.08.2018)	Chairman
10. Dr. Shaji Thomas, Head, Dept. of Surgical Services	Member	2. Dr. Rekha A. Nair, Director (from 15.10.2018)	Chairperson
11. Dr. Cherian Koshy, Head, Palliative Medicine Division	Member	3. Dr. K. Ramadas, Head, Dept. of Radiation Oncology	Member
12. Smt. Sreelekha R, Chief Nursing Officer	Member	4. Dr. Swapna R. Nath, NABH Nodal Officer	Member
13. Sri. Suresh G, Central Stores Officer	Member	5. Dr. Geetha N, Head, Dept of Medical Oncology	Member
14. Sri. Suresh Kumar S, Controller of Finance	Member	6. Dr. Aswin Kumar, Quality & Safety Officer	Member
15. Sri. PRamaprasad, Assistant Purchase Officer	Convener	7. Dr. Prasanth CV, Resident Medical Officer, Palliative Medicine Division	Member
j. Hospital Transfusion Committee		8. Dr. Saju B, Facility Management Coordinator	Member
1. Dr. Beela Sarah Mathew, Medical Superintendent (till 16.07.2018)	Chairperson	9. Sri. Giri Purushothaman, Head (i/c), Engineering	Member
2. Dr. R. Rejnish Kumar, Medical Superintendent (from 16.07.2018 to 23.10.2018)	Chairman	10. Smt. Sheela Rodriguez, Infection Control Convener	Member
3. Dr. Sajeed A, Medical Superintendent (from 24.10.2018)	Chairman	11. Smt. Sreelekha R, Chief Nursing Officer	Member
4. Dr.K. Ramadas, Head, Dept. of Radiation Oncology	Member	12. Smt. Mini N, Dietician	Member
5. Dr.T. Priyakumaruy, Head, Dept. of Paediatric Oncology	Member	13. Sri.V. B. Remesh Kumar, Security Officer	Member
6. Dr. Rachel Cherian Koshy, Head, Dept. of Anaesthesiology	Member	14. Dr. K. Ramadas, Head, Dept. of Radiation Oncology (till 21.12.2018)	Convener
7. Dr. Geetha N, Head, Dept. of Medical Oncology	Member	15. Dr. Sajeed A, Medical Superintendent (from 22.12.2018)	Convener
8. Dr. Shaji Thomas, Head, Dept. of Surgical Services	Member	l. Mortality/Morbidity Review Committee	
		1. Dr.K. Ramadas, Head, Dept. of Radiation Oncology (till 23.10.2018)	Chairman

2. Dr. Sajeed A,
Medical Superintendent
(from 24.10.2018) Chairman
3. Dr.K. Ramadas,
Head, Dept. of Radiation Oncology Member
4. Dr. Aswin Kumar,
Quality & Safety Officer Member
5. Dr. Geetha N,
Head, Dept. of Medical Oncology Member
6. Dr. Priyakumary T,
Head, Dept. of Paediatric Oncology Member
7. Dr, Rema P,
Additional Professor;
Dept. of Surgical Services Member
8. Dr. Bipin T.Varghese,
Additional Professor;
Dept. of Surgical Services Member
9. Dr. Asha Arjunan,
Associate Professor;
Dept. of Radiation Oncology Member
10. Dr. Roshni S,
Associate Professor;
Dept. of Radiation Oncology Member
11. Dr. Lali V S,
RMO, Dept. of Medical Oncology Member
12. Dr.Wagh Mira Sudham,
Assistant Professor;
Dept. of Surgical Services
(from 20.11.2018) Member
13. Dr. Madhu Muralee,
Deputy Medical Superintendent Convener

m. Code Blue Committee

1. Dr. K. Ramadas,
Head, Dept. of Radiation Oncology
(till 06.12.2018) Chairman
2. Dr.Viji S. Pillai,
Additional Professor; Dept. of
Anaesthesiology (from 06.12.2018) Chairperson
3. Dr. K. Ramadas,
Head, Dept. of Radiation Oncology Member
4. Dr. Rachel Cherian Koshy,
Head, Dept. of Anaesthesiology Member
5. Dr. Bhagyalakshmi,
Associate Professor;
Dept. of Anaesthesiology Member
6. Dr. Aswin Kumar,
Quality & Safety Officer Member

7. Smt. Sreelekha R,
Chief Nursing Officer Member
8. Smt. Vijaya A K, Head Nurse Member
9. Dr. Aswin Kumar,
Quality & Safety Officer (till 06.12.2018) Convener
10. Sri. Manoj, Staff Nurse (from 06.12.2018) Convener

n. Library Committee

1. Dr. Paul Sebastian,
Director (till 24.08.2018) Chairman
2. Dr. Rekha A. Nair,
Director (from 15.10.2018) Chairperson
3. Dr. K. Jayasree,
Additional Director (Academic)
(till 05.09.2018) Member
4. D. N. Geetha,
Additional Director (Academic)
(from 06.09.2018) Member
5. Dr. K. Ramadas,
Additional Director (Administration)
(till 31.8.2018) Member
6. Sri. Suresh Kumar S,
Controller of Finance (from 01.10.2018) Member
7. Dr. M.Venugopal,
Head, Dept. of Radiodiagnosis Member
8. Dr. K. Jayasree,
Head, Dept. of Pathology
(from 06.09.2018) Member
9. Dr.V.Vishnu,
Librarian cum Information Officer Gr I Convener

Right To Information Act

a. Appellate Authority

Dr. Geetha N, Additional Director (Academic)
(from 15.11.2018)

Dr. K. Ramadas, Additional Director (Admin)
(till 14.11.2018)

b. Public Information Officer

Dr. Sajeed A, Medical Superintendent (from 15.11.2018)

Public Information Officers (till 14.11.2018)

Sri.V.S. Sunil, Accounts Officer

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

Smt. Chandrika D., Medical Records Officer-I

Smt. N. Neelima, Systems Manager

c. Assistant Public Information Officer

Sri. Sajeesh CK, Clinical Records Assistant
(from 15.11.2018)

Assistant Public Information Officers (till 14.11.2018)

Smt. Jumailathu Beevi KM, Office Assistant Sel. Gr.
Sri.V. Surendran Nair, Public Relations Officer Sr. Gr:

d. Number of Applications

Received : 181

Disposed : 181

Pending : Nil

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

f. Cases pending with State Information Commission: Nil

Internal Control Mechanism

a. Staff used exclusively for internal audit : 1

b. Audit committee meetings : Nil

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

d. Other matters

i. Grievance redressal mechanism: Committee for redressal of complaints of sexual harassment against female employees.

ii. Official Language Act : Implemented

iii. Computerisation : Completed

ACCOUNTS
2018-2019

REGIONAL CANCER CENTRE SOCIETY,TRIVANDRUM (Reg. No. 567/81)
BALANCE SHEET AS ON 31st MARCH 2019

Schedule	Liabilities	Current Year (Rs.)	Previous Year (Rs.)	Schedule	Assets	Current Year (Rs.)	Previous Year (Rs.)
I	CAPITAL FUND	3,20,78,36,366.97	2,48,38,98,047.97	VI	FIXED ASSETS	3,24,92,82,308.60	2,67,21,77,304.16
II	SPECIFIC FUNDS	36,80,17,738.14	34,38,36,852.23	VII	INVESTMENTS	1,21,69,33,502.00	77,54,71,771.00
	Grant in aid - GOI for State Cancer Institute	43,08,854.00	4,58,65,572.00		<u>CURRENT ASSETS AND LOANS & ADVANCES</u>		
	GRANT FROM GOVT OF KERALA	54,69,182.20	6,76,42,204.20	VIII	CLOSING STOCK	15,07,04,465.72	14,66,09,963.17
	GRANT IN AID- GOK FOR KARUNAGAPALLY PROJECT	5,00,000.00	20,00,000.00	IX	ADVANCES-OTHERS & OTHER CURRENT ASSETS	7,85,33,048.53	6,87,10,094.79
	CCL FUND	20,94,60,053.00	20,94,60,053.00	X	INVESTIGATION FEES RECEIVABLE	80,99,37,975.27	1,60,41,23,042.38
III	RADIO THERAPY RESEARCH FUND	7,25,621.00	7,25,621.00	XI	BALANCE WITH BANK	39,77,42,138.65	86,08,10,669.12
	<u>CURRENT LIABILITIES AND PROVISIONS</u>			XII	CASH IN HAND	5,77,128.51	9,14,062.23
IV	CURRENT LIABILITIES - OTHERS	72,91,11,925.75	1,81,35,05,767.27	XIII	INCOME & EXPENDITURE ACCOUNT	49,78,80,405.61	53,17,83,545.65
V	PROVISION FOR GRATUITY	2,13,68,656.00	2,41,19,723.00				
	CREDITORS FOR GOODS SUPPLIED	13,31,09,551.25	14,22,02,006.25				
VI	PROVISION FOR DEPRECIATION	1,72,16,83,024.58	1,52,73,44,605.58				
	Total	6,40,15,90,972.89	6,66,06,00,452.50		Total	6,40,15,90,972.89	6,66,06,00,452.50

Trivandrum
26.02.2020

Dr: Rekha A Nair
(Director)

Gopakumar K R
(Controller of Finance)

For Rathnam & Murthy
Chartered Accountants
FRN:0031705

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

REGIONAL CANCER CENTRE SOCIETY,TRIVANDRUM (Reg.No. 567/81) INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2019

Schedule	Expenditure	Current Year (Rs.)	Previous Year (Rs.)	Schedule	Income	Current Year (Rs.)	Previous Year (Rs.)
	Opening Stock	14,66,09,963.17	11,67,65,222.00		Grant-in-aid; Govt of Kerala	57,71,66,000.00	57,71,66,000.00
A	Purchases,medicines,chemicals etc	67,99,56,877.00	76,97,93,502.00		Less: Pension Fund paid	-	-5,50,00,000.00
B	Salaries and Allowances	89,42,00,983.00	82,66,64,329.00		Investigation fees	57,71,66,000.00	52,21,66,000.00
C	Uniform and Liveries	5,66,860.00	5,03,817.00		Medicine Receipts	69,31,23,155.97	67,76,46,240.24
D	Rent,Rates & Taxes	11,05,274.00	22,39,876.00		Interest Income	63,36,07,151.63	69,46,94,486.10
E	Postage , Telephone & Telegram	7,79,302.00	8,28,323.00	L	Training Fees	2,29,49,149.05	2,75,84,415.67
F	Travelling Expenses	2,73,269.00	5,03,807.00	M	Miscellaneous Income	2,49,33,125.00	2,55,46,734.00
G	Printing and Stationery	16,27,613.00	23,72,265.00	N	Closing Stock	83,73,799.00	65,55,064.00
	Advertisement Charges	13,89,837.00	23,19,670.00			15,07,04,465.72	14,66,09,963.17
H	Electricity and water Charges	4,58,83,233.00	4,55,98,711.49				
I	Repairs and Maintenance	1,91,33,937.00	2,73,74,358.00				
	Service contract Charges	4,34,07,542.00	5,21,81,590.00				
J	Audit Fees	5,93,220.00	6,32,000.00				
	Computer Expenses	5,62,238.00	13,40,893.00				
	Books&Periodicals	8,920.00	16,060.00				
	Investi.charges to RGC Biotechnology	27,46,600.00					
	Expenses to NTR	52,15,101.00	54,44,417.00				
K	Miscellaneous Expenses	4,11,31,770.90	3,64,57,647.95				
	Depreciation	19,43,38,419.00	18,40,64,868.68				
	Excess of Income over Expenditure	3,13,25,887.30	2,57,01,546.06				
	Total	2,11,08,56,846.37	2,10,08,02,903.18		Total	2,11,08,56,846.37	2,10,08,02,903.18

Trivandrum
26.02.2020

Dr. Rekha A Nair
(Director)

Gopakumar K R
(Controller of Finance)

For Rathnam & Murthy
Chartered Accountants
FRN:0031705

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

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

SCHEDULE -VI

ITEM	Sch.	Gross Block			Depreciation			Net Block			
		Original cost 01.04.2018	Additions	Deductions	Cost on 31.3.2019	Up to 31.3.2018	Rate %	Additions	Total up to 31.3.2019	As on 31.3.2019	As on 31.3.2018
Air Conditioner	1	7,91,24,066.35	2,81,135.00	-	7,94,05,201.35	4,41,53,620.36	15.00	52,87,737.15	4,94,41,357.51	2,99,63,843.84	3,49,70,445.99
Building	2	58,25,58,879.57	2,24,56,394.00	-	60,50,15,273.57	22,09,13,976.66	10.00	3,84,10,129.69	25,93,24,106.35	34,56,91,167.22	36,16,44,902.91
Civil Works	3	3,09,140.63	-	-	3,09,140.63	1,96,166.76	10.00	11,297.39	2,07,464.15	1,01,676.48	1,12,973.87
Cobalt Unit	4	1,81,23,455.30	-	-	1,81,23,455.30	1,69,87,138.01	15.00	1,70,447.59	1,71,57,585.60	9,65,869.70	11,36,31,729
Hospital Equipments & Other Assets (Projects)	5	7,19,53,412.00	-	-	7,19,53,412.00	4,97,39,258.37	15.00	33,32,123.04	5,30,71,381.41	1,88,82,030.59	2,22,14,153.63
Electrical Installation	6	1,13,58,857.90	40,16,690.00	-	1,15,75,547.90	7,13,35,062.44	15.00	66,06,072.82	7,79,41,135.26	3,74,34,412.64	4,00,23,795.46
Hospital & Lab Equipments	7	1,43,57,787.97	23,06,55,625.00	-	1,66,64,344,12.97	87,31,84,691.35	15.06	11,94,33,146.16	99,26,17,837.50	67,38,16,575.47	56,25,94,096.62
Assets (Donations)	8	3,70,112.00	-	-	3,70,112.00	3,54,180.20	15.00	2,389.77	3,56,569.97	1,35,420.03	15,931.80
Fire Detection	9	1,52,10,379.00	5,19,211.00	-	1,57,29,590.00	72,48,688.33	15.00	12,72,138.25	85,20,806.58	72,08,783.42	79,61,710.67
Gas & Cylinder	10	1,03,84,532.05	-	-	1,03,84,532.05	86,66,448.93	15.00	2,57,71,247	89,24,161.40	14,60,370.65	17,18,083.12
Computer Hardware & Software	11	7,13,55,670.80	10,93,980.00	-	7,24,49,650.80	6,39,04,400.21	60.00	51,27,150.36	6,90,31,550.57	34,18,100.23	74,51,270.59
High Energy Linear Accelerator	12	5,29,87,763.00	-	-	5,29,87,763.00	4,75,42,228.05	15.00	8,16,830.24	4,83,59,058.29	46,28,704.71	54,45,534.95
Furniture & Fittings	13	3,52,35,753.48	51,38,715.00	-	4,03,74,468.48	2,05,10,433.73	10.00	19,86,403.48	2,24,96,837.20	1,78,77,631.28	1,47,25,319.75
Land	14	1,000.00	-	-	1,000.00	-	-	-	-	1,000.00	1,000.00
Library Books & Journals	15	9,66,29,868.65	1,09,75,546.44	-	10,76,05,415.09	5,86,79,467.47	15.00	73,38,892.15	6,60,18,359.62	4,15,87,055.47	3,79,50,401.18
Lift & Elevator	16	2,71,05,560.00	-	-	2,71,05,560.00	1,55,07,517.52	15.00	17,39,706.37	1,72,47,223.89	98,58,336.11	1,15,98,042.48
Low energy linear accelerator	17	36,11,489.40	-	-	36,11,489.40	30,07,131.06	15.00	90,653.75	30,97,784.81	5,13,704.59	6,04,358.34
Capital Work in Progress	18	2,25,70,837.60	29,76,91,123.00	-	32,02,61,960.60	-	-	-	-	32,02,61,960.60	2,25,70,837.60
Office Equipments	19	39,20,867.43	39,80013.00	-	79,00,880.43	29,07,700.47	15.00	7,48,976.98	36,56,677.45	42,44,202.98	10,13,166.96
Solar Power Generation System-M/s ANERT	20	62,08,809.00	-	-	62,08,809.00	18,00,975.00	15.00	6,61,175.10	24,62,150.10	37,46,658.90	44,07,834.00
Telemedicine Projects	21	77,18,623.00	-	-	77,18,623.00	70,22,901.84	15.01	1,04,430.42	71,27,332.26	5,91,290.74	6,95,721.16
Telephone Equipments	22	63,42,134.00	2,96,572.00	-	66,38,706.00	49,65,236.72	15.00	2,51,020.39	52,16,257.11	14,22,448.89	13,76,897.28
Vehicles	23	67,53,931.60	-	-	67,53,931.60	35,13,481.75	15.00	4,86,067.48	39,99,549.23	27,54,382.37	32,40,449.85
Water Supply & Drainage	24	65,63,373.43	-	-	65,63,373.43	52,03,920.35	15.00	2,03,917.96	54,07,838.31	11,55,535.12	13,59,453.08
TOTAL		2,67,21,77,304.16	57,71,05,004.44	-	3,24,92,82,308.60	1,52,73,44,605.58		19,43,38,419.00	1,72,16,83,024.58	1,52,75,99,284.03	1,14,48,32,698.58

For Rathnam & Murthy
Chartered Accountants
FRN:0031705

Dr. Rekha A Nair
(Director)

Gopakumar K R
(Controller of Finance)

Trivandrum
26.02.2020

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

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM
(Reg. no. 567/81)
CANCER CARE FOR LIFE SCHEME
INCOME AND EXPENDITURE ACCOUNT FOR
THE YEAR ENDED 31st MARCH 2019

SCHEDULE	PARTICULARS	CURRENT YEAR (Rs.)	PREVIOUS YEAR (Rs.)	SCHEDULE	PARTICULARS	CURRENT YEAR (Rs.)	PREVIOUS YEAR (Rs.)
	Reimbursement to Patients	1,35,02,427.26	1,33,55,795.57		Interest on FD & Investments	1,60,79,680.00	2,22,18,480.00
	Excess of Income over Expenditure	25,77,252.74	88,62,684.43				-
	Total	1,60,79,680.00	2,22,18,480.00		Total	1,60,79,680.00	2,22,18,480.00

Trivandrum
26.02.2020

Dr. Rekha A Nair
(Director)

Gopakumar K R
(Controller of Finance)

For Rathnam & Murthy
Chartered Accountants
FRN:0031705

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

INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF "REGIONAL CANCER CENTRE SOCIETY"

Opinion

We have audited the accompanying Financial Statements of **REGIONAL CANCER CENTRE SOCIETY**, Thiruvananthapuram which comprises the Balance Sheet as at March 31, 2019, the Income and Expenditure Account for the year then ended, and a summary of significant accounting policies. In our opinion, the accompanying financial statements give a true and fair view of the financial position of the entity as at 31st March 2019, and of its financial performance for the year then ended in accordance with the Accounting Standards issued by the Institute of Chartered Accountants of India (ICAI)

Basis for Opinion

We conducted our Audit in accordance with the Standards on Auditing (SAs) issued by ICAI. Our responsibilities under those Standards are further described in the Auditors Responsibilities for the Audit of Financial Statements section of our report. We are independent of the entity in accordance with the Code of Ethics issued by ICAI and we have fulfilled our other ethical responsibilities in accordance with the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter

Without qualifying our opinion, and to the best of our information and explanation given to the matters came to our notice during the course of audit are provided in Annexure I to this report.

Responsibilities of Management and those charged with Governance for the Financial Statements

The Societies management is responsible for the preparation of these financial statements that give a true and fair view of the state of affairs and the results of operations of the society in accordance with accounting principles generally accepted in India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of Accounting unless management either intends to liquidate the entity or to cease operations or has no realistic alternative but to do so. Those charged with Governance are responsible for overseeing the entity's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Standards on Auditing (SA's) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Report on other Legal and other regulatory requirements

1) We further report that;

- a) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for purposes of audit.
- b) In our opinion, proper books of account have been kept by Society so far as appears from our examination of those books.
- c) The Balance Sheet and the Income and Expenditure account dealt by this report are in the agreement with the Books of Accounts.
- d) In our opinion, the Balance Sheet and the Income and Expenditure Account comply with the Accounting Standards issued by the Institute of Chartered Accountants of India.

Place: Trivandrum
Date: 26.02.2020

For Rathnam & Murthy,
Chartered Accountants

Satheesh Kumar M, FCA, DISA (ICAI)
Partner
Membership Number: 207847
Firm Registration No.: 0031705
UDIN : 20207847AAAAAN3246

SCHEDULE – XV

SIGNIFICANT ACCOUNTING POLICIES

1. ACCOUNTING ASSUMPTIONS

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

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

2. METHOD OF ACCOUNTING

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

3. INVENTORIES

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

4. FIXED ASSETS

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

5. DEPRECIATION

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

6. GRANT-IN-AID

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

7. CAPITAL FUND

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

8. INCOME-TAX

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

9. ASSETS RECEIVED FROM PROJECT CELL

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

10. RETIREMENT BENEFITS

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

Trivandrum
26.02.2020

Dr. Rekha A Nair
(Director)

Gopakumar K R
(Controller of Finance)

For Rathnam & Murthy
Chartered Accountants
FRN:0031705

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

SCHEDULE – XVI NOTES ON ACCOUNTS

1. Had the organization followed the Accounting Standards (AS 12) regarding Government Grant issued by the ICAI and reduced the grant utilized for acquisition of fixed assets from the gross value of such assets, the depreciation debited to Income & Expenditure Account for the year would have been reduced by the quantum of depreciation relating to the value of specific assets acquired out of Grant-in-Aid and there would have been consequent reduction in the deficit for the year. As the organization, has been following the accounting practice, as mentioned under Clause No.6 of the Significant Accounting Policies, for previous years also, the impact of the above deviation from the standard in the current year's deficit could not be quantified precisely.
2. Investigation fees include income from registration fees, ward charges, nuclear medicine, radiotherapy, surgery and lab.
3. There is surplus or profit during the year, according to the society, which is not chargeable to income-tax, as the society has obtained registration under Section 12AA of the Income Tax Act 1961.
4. Contingent liability towards property tax and interest thereon is amounting to Rs.1,01,67,369/- Non-refund of Grant-in-aid is contingent upon the fulfillment of all the conditions attached to such assistance.
5. The balance in Grant in Aid from Government of Kerala account, includes grant received under Plan Fund of Rs .54,69,182/- and similarly Grant-in-Aid from Government of India of Rs. 43,08,854/- represent the unutilized amount of Grant received under Plan from the Central Government.
6. Figures for the previous year have been regrouped and recast wherever necessary to suit the current year lay-out.

Trivandrum
26.02.2020

Dr.Rekha A Nair
(Director)

K.R.Gopakumar
(Controller of Finance)

As per my report of even date attached

For Rathnam & Murthy
Chartered Accountants
FRN:003170S

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

TO WHOMSOEVER IT MAY CONCERN

1. During the year 2018-19 The Regional Cancer Centre Society, Thiruvananthapuram has received Rs. 2043.80 Lakhs under the head of account 2210-05-105-52-36 (NP) Grant in Aid-Non Salary and Rs. 3727.86 Lakhs under the head of account 2210-05-105-52-31 (NP) Grant in Aid-Salary from the Govt. Of Kerala. The details of such receipts are as follows:

Installment	G.O.Numbers	Amount (Rs. in Lakhs)
A	Head of Account-2210-05-105-52-36 (NP)- Grant in Aid-Non Salary	
1	GO(Rt)No.1472/2018/H&FWD dated 03/05/2018	340.63
2	GO(Rt)No. 2509/2018/H&FWD dated 07/08/2018	340.63
3	GO(Rt)No. 3184/2018/H&FWD dated 22/10/2018	340.63
4	GO(Rt)No. 3642/2018/H&FWD dated 10/12/2018	340.63
5	GO(Rt)No. 276/2019/H&FWD dated 05/02/2019	681.28
	Total	2043.80
B	Head of Accounts-2210-05-105-31 (NP)-Grant in Aid -Salary	
1	GO(Rt)No.1472/2018/H&FWD dated 03/05/2018	621.31
2	GO(Rt)No. 2509/2018/H&FWD dated 07/08/2018	621.31
3	GO(Rt)No. 3184/2018/H&FWD dated 22/10/2018	621.31
4	GO(Rt)No. 3642/2018/H&FWD dated 10/12/2018	621.31
5	GO(Rt)No. 276/2019/H&FWD dated 05/02/2019	1242.62
	Total	3727.86
	Grand Total (A+B)	5771.66

2. The amount was used during the year 2018-19 for the following purposes:

Sl. No.	Purpose	Amount (Rs. in lakhs)
1	Operational expenditure including salary	5771.66
	Total	5771.66

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

Trivandrum
26-02-2020

For Rathnam & Murthy
Chartered Accountants
FRN: 0031705

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

T.AJITH KUMAR B.Com, FCA
CHARTERED ACCOUNTANT

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

AUDITOR'S REPORT

I have audited the accounts of the Foreign Contribution for Research Projects of the Regional Cancer Centre Society, registered as per T.C Literary, Scientific and Charitable Societies Regulation Act XII of 1955 (Reg.No.567/81) with registered office at Medical College PO, Thiruvananthapuram-695011, Kerala State for the year ended 31st March, 2019 and examined all 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 2018-2019 was Rs.5,74,21,413.87
2. Foreign Contribution worth Rs.62,09,775.95 was received by the Association during the year ended 31st March 2019.
3. Interest accrued on foreign contribution and other income derived from foreign contribution or interest thereon of worth Rs. 43,80,124.50 was received by the Association during the financial year 2018-19.
4. The balance in foreign contribution account together with interest earned thereon at the end of the financial year 2018-2019 was Rs.5,94,67,473.32
5. Certified that the Association has maintained the accounts of foreign contribution and records relating thereto in the manner specified in section 19 of the Foreign Contribution (Regulation) Act, 2010(42 of 2010) read with Rule 17 of the Foreign Contribution (Regulation) Rules, 2011.
6. The information furnished above and in the Balance Sheet and statement of Receipts and Payments is correct, as checked by me.
7. The association has utilized the foreign contribution received for the purpose(s) it is registered or granted prior permission under Foreign Contribution (Regulation) Act, 2010

Trivandrum
19th October 2019

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

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM
(Reg. No.567/81)
Foreign contribution for Research Projects
Balance Sheet as at 31st March 2019

Amount INR						
Previous Year As on 31/03/2018	LIABILITIES		Current Year As on 31/03/2019	Previous Year As on 31/03/2018	PROPERTY & ASSETS	Current Year As on 31/03/2019
	CAPITAL FUND		-		FIXED ASSETS	-
35,923,075	RESEARCH FUND (Sch.1)		39,552,706	-		
				55,187,772	INVESTMENTS	53,092,616
21,498,339	FC PROJECT FUND (Sch.2)		19,914,767		(Schedule 3 attached)	
				-	CURRENT ASSETS &	
	CURRENT LIABILITIES			-	LOANS AND ADVANCES	
16,650	Salary Recovery	15,120		68,951	Cash in Hand	3,256
				398,594	Cash at Bank	2,263,905
709,100	Payable to Res: Project a/c	<u>285,667</u>	300,787		(SBI A/c No.57036240199)	
				2,148,726	Interest Accrued but not due	3,767,854
				316,121	Tax Deducted at Source	613,629
				7,000	Imprest	7,000
				20,000	Rent Deposits	<u>20,000</u>
58,147,164	TOTAL		59,768,260	58,147,164		6,675,644
						59,768,260

Vide my report of even date attached.

Trivandrum
19th October 2019

Finance Manager
(Projects)

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

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM
(Reg. No.567/81)
Foreign contribution for Research Projects
Receipts and Payments Account for the
year ended on 31st March 2019

RECEIPTS	Amt (Rs)	PAYMENTS	Amt (Rs)
To Opening Balance:-		By Project Expenses:-	
Cash in Hand	68,951	“ Revenue Expenses paid	8,126,344
Cash at Bank	398,594	“ Capital Expenses paid	131,830
Receipts-Research Funds	541,103	Other expenses paid	70,266
Foreign Receipts (Sch.2)	6,209,776	Salary Recovery Account	191,246
Recovery from Salary	206,366	Other Advances paid	69,500
Other Advance Recovered	69,500	Paid to Research Projects	709,100
Income Tax recovery	7,000	Income Tax paid	7,000
Term Deposit SBI	3,938,663	Tax,Welfare fund recoveries	11,700
Interest Received	132,494		
Tax,Welfare fund recoveries	11,700		
		To Closing Balance:-	
		Cash in Hand	3,256
		Cash at Bank	2,263,905
TOTAL	11,584,147	TOTAL	11,584,147

Vide my report of even date attached.

Trivandrum
19th October 2019

Finance Manager
(Projects)

DIRECTOR

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

INDEPENDENT AUDITOR'S REPORT

To the Management

Report on the Financial Statements

Opinion

I have audited the accompanying Standalone financial statements of The Project Cell of RCC ("the Project Cell") which comprises the Balance Sheet as at March 31, 2019, the Statement of Income & Expenditure and other notes to the financial statements, including policies and other explanatory information.

In my opinion and to the best of my information and according to the explanations given to me, the aforesaid standalone financial statements give a true and fair view, of the financial position of the Project Cell as at March 31, 2019, and of its financial performance for the year then ended in accordance with the Accounting Standards issued by the Institute of Chartered Accountants of India, (ICAI).

Basis for Opinion

I conducted my audit in accordance with the Standards on Auditing (SAs) issued by ICAI. My responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I am independent of the entity in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements and the Code of Ethics. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibility of Management for the Financial Statements

The management is responsible for the preparation and fair presentation of the financial statements in accordance with the accounting standards and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the entity's financial reporting process

Auditor's Responsibility for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Trivandrum
19th October 2019

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 2019

Previous Year As on 31/03/2018	LIABILITIES		Current Year As on 31/03/2019	Previous Year As on 31/03/2018	PROPERTY & ASSETS		Current Year As on 31/03/2019
			-				
9,963,578	CAPITAL FUND		9,963,578	93,693	FIXED ASSETS		126,276
					(Schedule-5)		
-	<u>EARMARKED FUNDS</u>						
99,051,876	R&D Fund (Sch.1)	112,090,910		194,165,256	INVESTMENTS		238,047,923
22,397,184	Training Fund (Sch.2)	25,379,182			(Schedule-6)		
1,759,173	Internal Project Fund(Sch.3)	2,208,865					
61,287,822	Project Fund (Sch.4)	56,993,858					
2,500,000	Grant in aid-Infosys	2,500,000					
50,000,000	Endowment Fund-Infosys	<u>50,000,000</u>	249,172,815		<u>CURRENT ASSETS &</u>		
					<u>LOANS & ADVANCES</u>		
-	-			131,013	Cash in Hand - Sch-7	59,037	
-	<u>OTHER CURRENT LIABILITIES</u>			<u>41,776,903</u>	Cash at Bank - Sch-8	<u>9,936,740</u>	9,995,777
212,544	Security Deposits	250,044			Other Current Assets and		
7,672	EPF Recovery	67,651		13,309,359	Loans & Advances		14,732,255
-	Goods & Service Tax	49,795			(Schedule-9)		
-	Sundry creditors - Expenses	138,871					
2,296,375	Int.on Endowment -Infosys	<u>3,259,477</u>	3,765,838				
249,476,224			262,902,231	249,476,224			262,902,231

Trivandrum
19th October 2019

Finance Manager
(Projects)

DIRECTOR

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

PROJECT CELL
REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM
(REG. No. 567/81)
Income and Expenditure Account
for the year ended on 31st March 2019

Previous Year As on 31/03/2018	EXPENDITURE	Current Year As on 31/03/2019	Previous Year As on 31/03/2018	INCOME	Current Year As on 31/03/2019
473,503	Salary Paid	483,995	2,317,126	Income from Projects	3,129,101
1,000	Travelling Expenses	800	11,973,267	Interest received	11,961,432
70,000	Audit Fee	70,000			
1,063	Printing & Stationery	7,866			
2,870	Computer Stationery	7,184			
50,115	Other Miscellaneous Expenses	32,545			
11,339	Depreciation	36,432			
13,680,503	Excess of Income Over Expenditure	14,451,711			
14,290,393		15,090,533	14,290,393		15,090,533

Trivandrum
19th October 2019

Finance Manager
(Projects)

DIRECTOR

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

REGIONAL CANCER CENTRE SOCIETY, TRIVANDRUM
PERIPHERAL CENTRE OF RCC AT NEENDAKARA
Receipts and Payments Account
for the year ended on 31st March 2019

Payments	Amount (Rs. Ps.)	Income	Amount (Rs.Ps.)
Salary	2,625,000.00	Grant-in-Aid received (G.O Rt.No.3460/2018/ H&FWD, Dt.21/11/2018)	2,000,000.00
Medicines	606,050.00	Grant-in-Aid received (G.O Rt.No.750/2019/ H&FWD, Dt.23/03/2019)	1,625,000.00
Consumables	156,325.00	Excess expenditure	9,058.00
Travel Expenses	59,749.00		
Contingencies	17,099.00		
Detection Camp Expenses	169,835.00		
TOTAL	3,634,058.00	TOTAL	3,634,058.00

Trivandrum
03rd June 2019

Finance Manager
(Projects)

DIRECTOR

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

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

Sl.No.	Letter No.& date	Major/Subheads	Amount (Rs. in lakhs)
1	Grant-in-Aid received (Rt.No.3460/2018/H&FWD, Dt.21/11/2018)	2210-05-200-97-31 (NP), Grant in Aid-Salary	15.00
2	Grant-in-Aid received (Rt.No.3460/2018/H&FWD, Dt.21/11/2018)	2210-05-200-97-36 (NP), Grant in Aid-Non Salary	5.00
3	Grant-in-Aid received (Rt.No.750/2019/H&FWD, Dt.23/03/2019)	2210-05-200-97-31 (NP), Grant in Aid-Salary	11.25
4	Grant-in-Aid received (Rt.No.750/2019/H&FWD, Dt.23/03/2019)	2210-05-200-97-36 (NP), Grant in Aid-Non Salary	5.00
	Total		36.25

Certified that out of **Rs. 36,25,000/-** of grants-in-aid sanctioned for the peripheral Centre of Regional Cancer Centre at Neendakara, Kollam District during the Financial year **2018-19**, a sum of **Rs. 36,34,058/-** has been utilized for the purpose for which it has been sanctioned. The Receipts and Payments account duly audited attached with this utilization certificate.

Director
03rd June 2019

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

Abbreviations used

3DCRT	Three-Dimensional Conformal Radiotherapy
AAR	Age-Adjusted incidence Rate
ABG	Arterial Blood Gas
AIDS	Acquired Immune Deficiency Syndrome
AML	Acute Myeloid Leukaemia
ASHA	Accredited Social Health Activist
BARC	Bhabha Atomic Research Centre
BCR-ABL	Breakpoint Cluster Region-Abelson murine leukaemic viral gene
BMT	Bone Marrow Transplantation
BSc	Bachelor of Science
CGHS	Central Government Health Scheme
CHIS	Comprehensive Health Insurance Scheme
CML	Chronic Myeloid Leukaemia
CNS	Central Nervous System
CR	Computed Radiography
CR	Crude Incidence Rate
CSR	Corporate Social Responsibility
CT	Computed Tomography
CVAD	Central Venous Access Device
DM	Doctorate of Medicine
DNA	Deoxyribonucleic Acid
DNB	Diplomate of National Board
DR	Digital Radiography
ECDC	Early Cancer Detection Centre
ECRT	Extra Corporeal Radiotherapy
ELISA	Enzyme-Linked Immunosorbent Assay
ER	Estrogen Receptor
ESI	Employees' State Insurance
ESMO	European Society for Medical Oncology
ESTRO	European Society for Radiotherapy and Oncology
FISH	Fluorescence In Situ Hybridization
FNAC	Fine Needle Aspiration Cytology
GA	General Anaesthesia
HbA1c	Haemoglobin A1c
HBCR	Hospital Based Cancer Registry
HbsAg	Hepatitis B surface Antigen
HCV	Hepatitis C Virus
HDR	High Dose Rate
HER2	Human Epidermal Growth Factor Receptor 2
HIV	Human Immunodeficiency Virus
HMCPF	Health Minister's Cancer Patient Fund
HPLC	High Performance Liquid Chromatography
HPV	Human Papillomavirus
IAEA	International Atomic Energy Agency
IARC	The International Agency for Research on Cancer
ICMR	Indian Council of Medical Research
ICU	Intensive Care Unit
IgG	Immunoglobulin G
IGRT	Image-Guided Radiation Therapy

IMRT	Intensity-Modulated Radiation Therapy
MCh	Magister of Chirurgiae
MD	Doctor of Medicine
MLT	Medical Laboratory Technology
MR	Magnetic Resonance
MRI	Magnetic Resonance Imaging
MS	Master of Surgery
MSc	Master of Science
MUPIT	Multiple-site Perineal Applicator
NACO	National AIDS Control Organisation
NBRR	Natural Background Radiation Registry
NCC	National Cadet Corps
NF-κB	Nuclear Factor Kappa-B Cells
NGO	Non-Governmental Organisation
NHL	Non-Hodgkin's Lymphoma
NSS	National Service Scheme
OGD	Oesophago-Gastroduodenoscopy
OP	Out Patient
PBCR	Population Based Cancer Registry
PC	Packed Cells
PCR	Polymerase Chain Reaction
PET/CT	Positron Emission Tomography/Computed Tomography
PICC	Peripherally Inserted Central Catheter
PML-RARA	Promyelocytic Leukaemia/Retinoic Acid Receptor Alpha
PR	Progesterone Receptor
RBC	Red Blood Corpuscles
RCC	Regional Cancer Centre
RGCB	Rajiv Gandhi Centre for Biotechnology
RILI	Radiation Induced Lung Injury
RNA	Ribonucleic Acid
RT	Radiation Therapy
RT-PCR	Reverse Transcription Polymerase Chain Reaction
SBRT	Stereotactic Body Radiation Therapy
SCTIMST	Sree Chitra Tirunal Institute for Medical Sciences and Technology
SERS	Surface-Enhanced Raman Scattering
SPECT	Single-Photon Emission Computed Tomography
SRS/SRT	Stereotactic Radiosurgery & Radiotherapy
STAT3	Signal Transducer and Activator of Transcription-3
TBI	Total Body Irradiation
TLD	Thermoluminescent Dosimeter
TNBC	Triple Negative Breast Cancer
TSET	Total Skin Electron Therapy
VIA	Visual Inspection with Acetic Acid
VIAM	Visual Inspection with Acetic Acid under Magnification
VILI	Visual inspection with Lugol's Iodine
VSSC	Vikram Sarabhai Space Centre

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



REGIONAL
CANCER
CENTRE

THIRUVANANTHAPURAM INDIA

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