

Information as per clause B.1.11

Research work, research grants and research publications during last one year

Jubilee Mission Medical College & Research Institute was established and recognized in 2003. Jubilee Centre for Medical Research (JCMR) is the central research facility of Jubilee Mission Medical College & Research Institute. Approvals like DSIR-SIRO, Income Tax exemption u/s 35 1(ii), Ethics committee (CDSCO, DHR & NABH), Animal house (CPCSEA) are valid for the coming year. JCMR is recognized as research centre for Ph.D programme under the faculty of Medicine, Nursing and Paramedical & Allied Health Sciences under Kerala University of Health Sciences (KUHS). KUHS has also recognised 21 guides from Medical Faculty. JCMR has furnished laboratory space of 6750 sq ft and the animal house is 2000sq ft. Equipments worth 3 crores is in use at JCMR. Apart from these, 24 labs/facilities of Jubilee Mission Medical College are now functioning as research units.

To involve in research activities along with clinical practice is a commitment of faculty and students of this medical college. The Faculty and students are actively participating in various research programs funded by government and private sectors as well as by the parent institution. They spend extra hours to carry out research projects along with their routine teaching learning process. The research activities came to a full swing by 2014 with the joining of the eminent biochemist Dr D M Vasudevan as the Director of Research.

Jubilee has completed several research projects both externally funded and institutional. Funding agencies include ICMR, DRDO, DST, DBT, KSCSTE etc. Detailed research projects conducted in 2021 is provided in the table given. More funded projects are awaited in the coming years.

There is a constant increase in the number of research papers published every year. Faculty members are advised to make publications in journals with good impact factor. Last year, there were more than 100 publications with more than 150 faculty of the Medical College as authors and more than 60 faculty members involved in various research programmes. More publications are expected in coming years.

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Funded research projects 2021

| Sl No | Title of the Project | Name of investigators | Funding Agency Year of starting and completing | Amount Sanctioned |
|-------|---|---|--|-------------------|
| 1 | Influence of demographic, clinical, genetic and pattern of management in maintaining long term abstinence among patients of alcohol use disorders who received treatment from De-addiction centres in Thrissur district: A prospective follow up study. | Dr. Praveenlal Kuttichira, Professor Psychiatry Dept | ICMR (Extramural) 2019-2022 | Rs. 53.68 Lakhs |
| 2 | Randomized controlled trial of the effect of milking of umbilical cord versus standard care on Neonatal Morbidity pattern and Neurodevelopmental outcome up to one year of corrected age in very preterm infants | Dr V C Manoj Assoc Professor Neonatology Dept | KSCSTE 2018-2021 | Rs 16.32 Lakhs |
| 3 | Laboratory extraction of active 1-8 Cineol from <i>Alpine calacrata</i> and <i>Elettaria cardamomum</i> leaves, quantification using GCSMS studies and studies on antibacterial activity | Dr Prashanth Varkey, Associate Professor, JCMR | CSR funding M/s Jos Alukkas Foundation 2020-21 | Rs 35 Lakhs |
| 4 | Non-invasive treatment of uterine fibroids through rationally designed Selective progesterone receptor modulators. | Dr. Dileep Vijayan, Scientist, JCMR | DHR 2021-23 | Rs 90.6 Lakhs |
| 5 | Epidemiological and Genetic Research among the Orofacial cleft patients from Central Kerala: A hospital based case control study | Dr. Alex George, Scientist, JCMR | Smile Train India 2021-23 | Rs 78.6 Lakhs |
| 6 | Rotasiil® Vaccine Intussusception Surveillance in Kerala, Karnataka, Maharashtra and Gujarat, India | Dr Aparna Namboodirippad Associate Professor, Dept. of Pediatrics | Funded by Bill and Melinda Gates Foundation, USA through CMC Vellore 2020-22 | 15.2 lakhs |
| 7 | Indian Registry in Ischemic Stroke with Tenecteplase (IRIS – TNK Registry) | Dr PC Gilvas, Prof & HoD, Neurology | Gennova Biopharmaceuticals Ltd | 9 Lakhs |

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| | | | 2021 | |
| 8 | Rotasiil® Vaccine Impact Assessment Study in Kerala, Karnataka, Maharashtra and Gujarat, India | Dr Aparna Namboodirippad Associate Professor, Dept. of Pediatrics | Wellcome Trust through CMC Vellore 2021-22 | 18.5 Lakhs |
| 9 | To evaluate the efficacy and safety of Atosiban 7.5 mg/ml in Preterm labor mitochondria mediated pathway in H9c2 cardiomyoblast and heart for development of nutraceutical | Dr Aswath Kumar, Prof, Dept of Obstetrics & Gynecology | Zuventus Healthcare Ltd. 2020-21 | Rs. 2 Lakhs |
| 10 | A Multicenter Retrospective Observational study of Antimicrobial resistance profile in ICU patients | Dr. Chitra Valsan, Prof & Head, Dept of Microbiology | Mylan pharmaceutical 2020-21 | Rs 0.25 Lakhs |
| 11 | Development of microneedles from hyaluronic acid | Dr Prashanth Varkey, Associate Professor, JCMR | CSR funding (M/s Vector Surgical Disposables) 2021-22 | 5 Lakhs |
| ICMR- STS project Short Term Studentship project granted to MBBS students | | | | |
| 12 | A Study on the Causes and Outcomes of Markedly Elevated C reactive protein in Adults in a Tertiary Care Teaching Hospital in Central Kerala | Ms. Avelyn T Kishore (MBBS Student) Dr. Rosmi Jose (Dept of Microbiology) | ICMR STS 2020-21 | Rs 20,000/- |
| 13 | Genetic Correlation by Pedigree Analysis in Patients Diagnosed with PCOS as per Rotterdam's Criteria | Ms. Aiswarya H Menon (MBBS Student) Dr. Saley Daniel (Dept of OBG) | ICMR STS 2020-21 | Rs 20,000/- |
| 14 | Comparison of Sitting Time and Physical Activity as Predictors of Cardio-respiratory Fitness in Medical Students | Mr. Ashwin Varkey Ajay (MBBS Student) Dr. Biju Bahuleyan (Dept of Physiology) | ICMR STS 2020-21 | Rs 20,000/- |
| 15 | Clinical and Microbiological Profile and Outcome of Blood Stream Infections with Carbapenem Resistant and Carbapenem Susceptible Enterobacteriaceae- a Comparative Study | Ms. Donna M Thomas (MBBS Student) Dr. Chithra Valsan (Dept of Microbiology) | ICMR STS 2020-21 | Rs 20,000/- |
| 16 | Prevalence of occupational | Ms. Jaziya Jabeen | ICMR STS | Rs 20,000/- |

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| | burnout among resident doctors working in a private hospital, Central Kerala | (MBBS Student) Dr. P R Varghese (JCMR) | 2020-21 | |
| 17 | A Hospital Based Study on Assessing the Significance of Serum Lactate Dehydrogenase Level in Preeclampsia and its association with Maternal and Foetal Outcome | Mr. Savio Simon (MBBS Student) Dr. Viji Krishnan (Dept of Biochemistry) | ICMR STS 2020-21 | Rs 20,000/- |

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| | cleft patients from Central Kerala: A hospital based case control study | | | |
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| 14 | Comparison of Sitting Time and Physical Activity as Predictors of Cardio-respiratory Fitness in Medical Students | Mr. Ashwin Varkey Ajay (MBBS Student) Dr. Biju | ICMR STS 2020-21 | Rs 20,000/- |

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| | | Bahuleyan (Dept of Physiology) | | |
| 15 | Clinical and Microbiological Profile and Outcome of Blood Stream Infections with Carbapenem Resistant and Carbapenem Susceptible Enterobacteriaceae- a Comparative Study | Ms. Donna M Thomas (MBBS Student) Dr. Chithra Valsan (Dept of Microbiology) | ICMR STS 2020-21 | Rs 20,000/- |
| 16 | Prevalence of occupational burnout among resident doctors working in a private hospital, Central Kerala | Ms. Jaziya Jabeen (MBBS Student) Dr. P R Varghese (JCMR) | ICMR STS 2020-21 | Rs 20,000/- |
| 17 | A Hospital Based Study on Assessing the Significance of Serum Lactate Dehydrogenase Level in Preeclampsia and its association with Maternal and Foetal Outcome | Mr. Savio Simon (MBBS Student) Dr. Viji Krishnan (Dept of Biochemistry) | ICMR STS 2020-21 | Rs 20,000/- |

LIST OF PUBLICATIONS 2020-2021

| Sl. No | Title of the paper | Authors | Year of Publication | Name of Journal | *Employment of author with Jubilee |
|--------|---|---|---------------------|--|--|
| 1. | Human-derived scaffold components and stem cells creating immunocompatible dermal tissue ensuing regulated nonfibrotic cellular phenotypes. | Ramakrishnan R, Sreelatha HV, Anil A, Arumugham S, Varkey P* et.al. | 2020 | ACS Biomaterials Science & Engineering. 2020 Apr 7;6(5):2740-56. | Scientist, Jubilee Centre for Medical Research |
| 2. | Possible Effects of Perchlorate Contamination of Drinking Water on Thyroid Health. | Sunny P O, Ronnie T*, N.Chandramohanakumar, et.al. | 2020 | Journal of Thyroid Research, May 2020. 1-6 | Asst Prof. Dept of Community Medicine |
| 3. | Trauma Care in India: Capacity Assessment Survey From Five Centers. | Babu BV, Vishwanathan K, Ramesh A, Gupta A, Tiwari S, Palatty BU*, et.al. | 2020 | Journal of Surgical Research. 2020 Aug 1;252:156-68 | Prof & Head, Dept of Emergency Medicine |
| 4. | Study On Effect Of Ayurvedic Treatment To Stabilize Creatinine Level And Control Progression Of Chronic Kidney Disease. | Puthur Donata *, Prasad Krishna, Varghese P R and Shadevan C D | 2020 | International Ayurvedic Medical Journal; 4(4): April- May 2020, 2298-2302. | Senior consultant, Jubilee Ayurveda Mission Hospital |

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| 5. | Role of Hyperbaric Medicine for Osteoradionecrosis and Post Irradiation Wounds: an Institutional Experience. | Korambayil PM*, Ambookan PV, Pillai S, Karangath RR, George D. | 2020 | Indian Journal of Surgical Oncology. 2020 Sep;11(3):469-74. | Prof & Head, Dept of Plastic Surgery |
| 6. | Hospital oxygen supply: A survey of disaster preparedness of Indian hospitals. | Paul C*, Paul J, Babu A. | 2020 | Indian J Respir Care 2020;9:216-20. | Asst Prof, Dept of Anaesthesia |
| 7. | Sustained Support for a Dissertation Will Facilitate Postgraduate Research Publication: An Experience From South India. | Kuttichira P*, M Unni K, Varghese PR. | 2020 | Journal of Medical Education. 2020 Feb 29;19(1). | Prof, Dept of Psychiatry |
| 8. | COVID 19 Pandemic-Affidavit by academic personnel on well being and social responsibility from a Medical College in Central Kerala. | Rafi Mohammed*, Varghese P R, Kuttichira.P. | 2020 | Journal of the Social Sciences; 48(3): July 2020, 427-430. | Assoc Prof, Dept of Transfusion Medicine |
| 9. | Basic Life Support: Need of the Hour-A Study on the Knowledge of Basic Life Support among Young Doctors in India. | Chandran KV, Abraham SV*. | 2020 | Indian J Crit Care Med. 2020;24(5):332-335. | Asst Prof, Dept Emergency Medicine |
| 10. | The accuracy of anthropometric measurements of general and central obesity for the prediction of impaired glucose tolerance among the adult population of South India. | Thomas R*, Ambookan PV, Jose J, Unnikrishnan UG | 2020 | J Family Med Prim Care 2020;9:3416-20 | Asst Prof, Dept of Community medicine |
| 11. | Management of accidental thermal burns due to burning of household waste in rural areas of Kerala: an institutional study. | Hemang S, Geetanjali R, Pradeoth M*. | 2020 | Global Journal For Research Analysis July-2020 : 9(7) | Prof & Head, Dept of Plastic Surgery |
| 12. | Comparative Study Of Collagen Vs. Silver Foam Dressing In Second Degree Superficial Burns: An Institutional Study. | Hemang Sanghvi*, Smitha Segu, Shikha Sanghvi. | 2020 | Global Journal For Research Analysis : 9 (7) July-2020 | Consultant, Dept of Plastic Surgery |
| 13. | The Pedagogical Shift During COVID 19 Pandemic: Online Medical Education, Barriers and Perceptions in Central Kerala. | Rafi, A. M*., Varghese, P. R., & Kuttichira, P | 2020 | Journal of Medical Education and Curricular Development. 2020 Aug | Assoc Prof, Dept of Transfusion Medicine |

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| 14. | Lasers use in dermatology practice in the evolving COVID-19 scenario: Recommendations by SIG lasers (IADVL academy). | Dhawan S, Kumari P, De A, Pall A, Pudukadan D*, et.al. | 2020 | Indian dermatology online journal. 2020 May;11(3):337 | Prof, Dept of Dermatology |
| 15. | Prevalence of Headache Disorders, their Impact on the Daily Lifestyle of the Patients, and the Correlation of their Demographic and Clinical Features with Headache Impact Test 6. | Farooque U, Fahham Asghar MT, Pillai B, Shabih S, Muralidharan S*, et.al. | 2020 | Archives of Internal Medicine Research. 2020;3:195-205 | MBBS student |
| 16. | A cross sectional observational study about the relationship between Body Mass Index and severity of asthma in children aged 6 to 14 years. | Karunakaran R, Santhakumar R*, Vincent J. | 2020 | Int J Adv Med 2020;7:1486-91. | Assoc Prof, Dept of Pediatrics |
| 17. | Willingness and psychological preparedness to attend to COVID-19 patients among healthcare workers in a tertiary care private hospital in Kerala-A mixed method study. | Valsan N*, Thomas R, Kuttichira P, Valsan C, James A. | 2020 | Kerala Journal of Psychiatry. 2020 Sep 27;33(2):96-104 | Assoc Prof, Dept of Psychiatry |
| 18. | Impact of COVID-19 pandemic on people with alcohol use disorder in Kerala-An observation from Thrissur district. | Thomas C, Menon G*, Kuttichira P. | 2020 | Kerala Journal of Psychiatry. 2020 Sep 30;33(2):165-9. | Asst. Prof, Dept of Psychiatry |
| 19. | An observational study on clinical and bacteriological profile of new-borns with early onset sepsis. | Tharu MG, Santhakumar R*, Manoj VC | 2020 | Int J Contemp Pediatr 2020;7: 1962-7. | Assoc Prof, Dept of Pediatrics |
| 20. | Diagnostic accuracy of fine needle aspiration cytology and the significance of Bethesda category III in thyroid neoplasia. | Pillai RH, Chimmen JV*, Aswathi R. | 2020 | J Evid Based Med Healthc 2020; 7(40), 2242-2246. | Asst Prof, Dept of pathology |
| 21. | Association of Cardiorespiratory Fitness with Visceral Adiposity and Lifestyle Patterns Among Undergraduate Medical Students in South India. | Abiya Kunjumon, Biju Bahuleyan* | 2020 | International Journal of Medical Science and Current Research, 2020; 3(5), 312-321. | Prof & Head, Dept of Physiology |
| 22. | Clinical outcome of platelet transfusion using platelet-rich plasma-derived platelets and buffy coat-removed platelets in patients with dengue fever – A comparison. | Purushothaman J, Innah SJ*. | 2020 | Glob J Transfus Med 2020;5:38-43 | Prof & Head, Dept of Transfusion Medicine |

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| 23. | Procedural Volume and Outcomes After Primary Percutaneous Coronary Intervention for ST-Segment–Elevation Myocardial Infarction in Kerala, India: Report of the Cardiological Society of India–Kerala Primary Percutaneous Coronary Intervention Registry. | Jabir, A., Mathew, A., Zheng, Y., Westerhout, C., Viswanathan, S., Sebastian, P., Kumar, P*, et. al. | 2020 | Journal of the American Heart Association, 9, p.e014968. | Prof, Dept of Cardiology |
| 24. | Clinical impact of adjuvant chemotherapy and radiation for carcinoma stomach: Experience from a tertiary care center. | Chalissery JR, Jose T A, Pillai S*, Unni H, Varghese K M, Gopu G et.al | 2020 | J Can Res Ther 2020;16, Suppl S1:122-27 | Prof, Dept of Oncology |
| 25. | Finger Ridge Patterns In Psoriasis Patients. | Varghese P D, Leelamma A George, Lekha K.S, Anjali K Mathew, Varghese P R* | 2020 | Indian Journal Of Applied Research 2020; 10 (11): 1-2 | Research Coordinator, JCMR |
| 26. | Influence of family environment on childhood emotional and behavioural disorders. | Kaimal GG, Punnoose VP, Beevi SK* . | 2020 | J Evid Based Med Healthc 2020; 7(44), 2544-2549. | Prof & Head, Dept of Psychiatry |
| 27. | Diabetic dermopathy (shin spots) and diabetic retinopathy-are they associated? | Babu N, Andrew NT, Paul M, Andrews C V* et al. | 2020 | J Evid Based Med Healthc 2020; 7(48), 2806-2810 | Prof & Head, Dept of ophthalmology |
| 28. | Secretory Cell OUTgrowth (SCOUT), Serous Tubal Intraepithelial Carcinoma (STIC) and P53 expression in fallopian fimbriae of ovarian serous tumors- A tertiary care center study. | Aswathi R*, Jayalakshmy PS. | 2020 | Indian J Pathol Oncol2020;7(4): 636-642 | Asst Prof, Dept of pathology |
| 29. | Screening for hearing impairment in high-risk neonates in a tertiary care centre in central Kerala. | Maina J, Santhakumar R*, Manoj VC, Vellore M. | 2020 | J Evid Based Med Healthc 2020; 7(49), 2959-2963 | Assoc Prof, dept of Pediatrics |
| 30. | Clinical Profile Of Intussusception In Children Admitted To A Tertiary Care Centre In Kerala. | Neethu Jose, Aparna Namboodiripad*, Regi George. | 2020 | International Journal of Medical Science and Diagnosis Research, 2020; 4 (12): 11-14 | Assoc Prof, Dept of Pediatrics |

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| 31. | Effectiveness of Targeted Health Education with Focus on Knowledge and Practice among Hospital Sanitation Workers designated in Isolation Wards as Part of the Pandemic Preparedness for COVID-19. | Priyanka, R [*] , Jubinabency, A. T, Thomas J, Thomas R, UG U, Raphael L. | 2020 | Indian Journal of Public Health Research & Development. 2020 Dec 1;11(12). | Asst Prof, Dept of Community medicine |
| 32. | Anti-mutagenic Activity of Oxycarotenoid-rich Extracts Isolated from Coriandrum Sativum and Murraya koenigii. | Anish A, Abdulkadir SP, Theru AP [*] , Kurian MJ. | 2020 | Asian Pacific Journal of Cancer Biology. 2020 Dec 7;5(4):147-52. | Prof & Head, Dept of Anatomy |
| 33. | Concerns and confidences expressed by teaching staff about the shift of medical education to online mode in South India during the COVID 19 pandemic. | Rafi AM [*] , Varghese PR, Kuttichira P. | 2020 | Journal of Ideas in Health. 2020 Dec 24;3(Special2):272-5. | Assoc Prof, Dept of Transfusing Medicine |
| 34. | Perinatal outcome in babies in relation to severity of maternal hypertension. | George JM, Antony T. | 2020 | International Journal of Medical Science And Diagnosis Research. 2020 Dec 25;4(12) | Assoc Prof, Dept of Pediatrics |
| 35. | Effect of a quality improvement intervention for acute heart failure in South India: An interrupted time series study. | Agarwal A, Mohanan PP, Kondal D, Baldrige A, Davies D, Devarajan R, Unni G [*] , et.al. | 2020 | International Journal of Cardiology. 2020 Dec 24 | Prof & Head, Dept of Cardiology |
| 36. | Immature Platelet Fraction as a Prognostic Indicator of Platelet Recovery in Patients with Thrombocytopenia—An Observational Study. | Mampilly RP, Earali JG [*] , AnilKumar CR. | 2020 | J Assoc Physicians India. 2020;68(1):93 | Prof & Head, Dept of Medicine |
| 37. | Study of Palmar Angles as a Dermatoglyphic Feature in Bronchial Asthma. | Deepa TK, Ranjith S [*] , Sampson U, Fysal N, Suhail N, et.al. | 2020 | Scholars International Journal of Anatomy and Physiology, 3 (1), 1-7. | Prof, Dept of Anatomy |
| 38. | A survey of practices to diagnose, manages, prevent and control COVID-19 from 28 centres. | Bhattacharya S, Iyer R, Raja K, ... Ardra M [*] , et.al. | 2020 | J Acad Clin Microbiol 2020;22:5-11 | Asst. Prof, Dept of Microbiology |
| 39. | Are we prepared? Lessons from Covid-19 and OMAG position paper on epidemic preparedness. | Raina SK, Kumar R, Galwankar S, Garg S, Bhatt R, ..Krishnan V [*] , et al. | 2020 | J Family Med Prim Care 2020;9:2161-6 | Asst. Prof, Dept of Emergency Medicine |

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| 40. | Immediate Mental Health Response to Kerala Floods 2018 Victims. | Kuttichira P*, Kallivayalil RA, James A, Thomas C, Rahiman A. | 2020 | World Soc Psychiatry 2020;2:210-6. | Prof, Dept of Psychiatry |
| 41. | Adverse maternal complications in hellp syndrome-a hospital based study. | Lola Ramachandran*, Viji Krishnan, Tina Miriam Francis. | 2020 | Paripex - Indian Journal F Research, May – 2020; 9 (5). 49-50 | Assoc Prof, Dept of OBG |
| 42. | Prospective evaluation of tracheobronchial foreign bodies. | Ihsan AT*, Ambooken D. | 2020 | Int J Otorhinolaryngol Head Neck Surg2020;6:1474-6 | Prof, Dept of Otorhinolaryngology |
| 43. | A Study on The Pattern of Retinal Changes in Patients With Chronic Kidney Disease. | Anchitha Meenu R, Anthrayos C V Kakkannatt*, Monsy Thomas Mathai & Niya Babu. | 2020 | International Journal of Current Medical and Applied sciences; 2020, 29(1), 05-12 | Prof & Head, Dept of Ophthalmology |
| 44. | Do medical interns have adequate training in geriatric medicine? A study on the knowledge and attitudes of interns toward older patients at a medical college in Kerala, South India. | Manjaly SP*, Francis A, Kotturan AD | 2020 | J Indian Acad Geriatr 2020;16:107-10 | Asst Prof & Head, Dept of Geriatrics |
| 45. | The Pandemic 2019-Awareness Among Medical Students-A Cross-Sectional Survey. | Anush Maria Joy, Biju Bahuleyan* | 2020 | International Journal of Creative Research Thoughts; 8 (11): 2552-55 | Prof & Head, Dept of Physiology |
| 46. | Impact of the SARS-CoV-2 pandemic on emergency surgery services—a multi-national survey among WSES members. | Reichert M, Sartelli M, Weigand MA, Doppstadt C, Hecker M,Alfie.K* et al | 2020 | World Journal of Emergency Surgery. 2020 Dec;15(1):1-0. | Prof, Dept of Surgery |
| 47. | Demographic profile of alcohol use disorder patient who received care from a de-addiction centre in central Kerala | Maria BC, Maria JP, Thomas R, Varghese PR, Kuttichira P* | 2020 | . Int J Community Med Public Health 2021;8:243-7. | Prof, Dept of Psychiatry |
| 48. | Paradigm shift in health-care seeking behavior: A report from central Kerala, India, during COVID-19 pandemic. | Kuruvilla K*, Kuttichira P, Varghese PR, Vinu EV, Gopi IK. | 2020 | CHRISMED J Health Res 2020;7:271-5 | Scientist, JCMR |

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| 50. | A rare case of primary nasal tuberculosis. | George MV*, Theresa L, Aswathi R | 2020 | Int J Otorhinolaryngol Head Neck Surg 2020;6:793-5. | Prof, Dept of Otorhinolaryngology |
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