MANUBHAI PATEL DENTAL COLLEGE

2025 – 2026

Research Projects, Grants, Patents, Innovations and Scholarly Activities

Grants and funded research

- ICMR-approved study (approved for three consecutive years) – Department of Public Health Dentistry
- Yashvi Shah secured an ICMR grant of ₹1 lakh (2025) – Department of Orthodontics & Dentofacial Orthopaedics
- Research grant of ₹3,68,000 sanctioned by the Indian Society of Periodontology to Dr. Vishwa Amin for research from 2025 to 2028 – Department of Periodontology
- ICMR-approved student studies with a grant of ₹50,000 each (Batch of 2025): Arya Pathak, Twisha Prajapati and Khushi A. Desai
- ICMR-approved study by Khushi A. Desai, published in Cureus Journal (2025) – Department of Conservative Dentistry & Endodontics

Patents, copyrights and books

- 1 patent granted by the Government of India and 1 copyright – Department of Oral Diagnosis, Medicine & Radiology
- Copyrights and patents (academic purpose) – Department of Conservative Dentistry & Endodontics
- Patent – Dr. Priyadarshini Nadig, Department of Periodontology
- Book "Nano AI Revolution in Dental Science" published by Dr. Kandarp Raj – Department of Periodontology
- Textbook of Dental Anatomy, Physiology & Occlusion (3rd Edition) featuring Department of Oral & Maxillofacial Pathology staff
- Case report by Dr. Ankit and Dr. Padmaja included in the latest edition of the textbook McDonald and Avery's Dentistry for the Child and Adolescent – Department of Orthodontics

Publications (department totals)

- Oral Diagnosis, Medicine & Radiology – 50+ publications till date
- Public Health Dentistry – 50+ publications till date
- Orthodontics & Dentofacial Orthopaedics – 50+ publications till date
- Prosthodontics – 5+ staff publications in 2025; 50+ overall
- Conservative Dentistry & Endodontics – 100+ articles in reputed national and international journals
- Oral & Maxillofacial Pathology – 100+ publications till date
- Research publication: "CBCT Simplified: Exploring the 3rd Dimension" – Department of Oral Medicine & Radiology

Student scholarly work (Batch of 2025)

- Zaki Kadri – 4 articles published in the IDA Journal; cross-sectional studies on (i) trends in patient flow and treatment demand in dentistry and (ii) dental students' knowledge, attitude and perception of artificial intelligence in dentistry
- Arya Pathak – ICMR-approved study (also shown in Oral & Maxillofacial Pathology section)
- Khushi A. Desai – research article published in Cureus Medical Journal, 2025

Innovations, clinical firsts and new facilities

- First bilateral sagittal split osteotomy (orthognathic surgery) successfully performed – Oral & Maxillofacial Surgery (7 major and 752 minor surgeries in 2025)
- Myofunctional therapy started for improved jaw growth in children; maxillary arch expansion with Hyrax screws – Pediatric Dentistry
- Free biopsies for oral cancer and oral lesions – Oral & Maxillofacial Pathology
- "Artistry in Dentistry" undergraduate education models – Oral & Maxillofacial Pathology
- Mind-map teaching technique for 1st and 2nd year UG students – Dr. Khyati Pandya
- New equipment: Carestream CBCT machine; Immunohistochemistry lab; Pentahead microscope; Labomed microscope with HD screen and wireless camera; interactive smart boards; Certifuge (PRF machine); laser
- Collaborative initiatives (MoUs): Special Olympics Bharat; Dayanand Sagar Institute of Dental Sciences (RGUHS), Bengaluru; FICCI FLO