

Nomination Biography — Dr. Abhishek Jahagirdar, DDS, MDS

I am a dentist-scientist with postgraduate training in Oral Pathology and Microbiology and a long-standing interest in research that sits at the intersection of diagnostic science, cytogenetic biomarkers, oral public health and Dental Anesthesiology. I completed my Master of Dental Surgery at Rajiv Gandhi University of Health Sciences in India and my Doctor of Dental Surgery at the University of California, San Francisco. I have matched for the Dental Anesthesiology program at The Ohio State University Wexner Medical Center, where I am pursuing an MS degree alongside clinical training in one of the most selective advanced dental specialty programs in the country.

My most cited research contribution is a study I published in the Journal of Cytology in 2012 — "A comparative study for selectivity of micronuclei in oral exfoliated epithelial cells." The work grew out of a problem I kept encountering in oral cytology: the difficulty of reliably distinguishing biologically meaningful micronuclei from background cellular noise, which was limiting the practical utility of micronucleus assays as early cancer risk biomarkers. The paper proposed clearer interpretive criteria for this distinction and has since been independently cited over seventy times by investigators across oral pathology, cytogenetics, and oncology in multiple countries, something I did not anticipate at the time but which has been gratifying to see.

Alongside this work, I have contributed to the diagnostic oral pathology literature through two rare case reports that I believe have had some lasting reference value. The first described a bilateral presentation of glandular odontogenic cyst in the posterior maxilla, which to my knowledge is the first such bilateral occurrence reported in the indexed scientific literature at the time of publication and second documented an atypical anterior maxillary presentation of calcifying epithelial odontogenic tumor (Pindborg tumor). Both were published in PubMed-indexed journals and have been cited in subsequent literature on the diagnosis and management of rare odontogenic lesions.

More broadly, my publication record includes 11 PubMed-indexed papers and an international textbook chapter on teledentistry and oral health access, published in A Comprehensive Overview of Telemedicine (IntechOpen, 2024), which has been downloaded over 160 times internationally. My research interests have evolved over time from cytogenetic biomarkers and diagnostic pathology into sedation safety, anesthesia outcomes, and oral public health systems, reflecting both my clinical trajectory and my genuine curiosity about problems that sit across disciplinary boundaries.

I have served as a peer reviewer and editorial board member for journals including the Journal of the American Dental Association and the Journal of Oral and Maxillofacial Pathology and others, held academic appointments as Assistant Professor and Interim Department Chair, and served as Assistant Registrar at Rajiv Gandhi University overseeing examinations across more than 600 affiliated institutions. I was selected for the WHO Prolead II Health Promotion Programme fellowship in Kobe, Japan, and am an elected Fellow of the Pierre Fauchard Academy and International College of Dentists where the acceptance rate is less than 1% among dentists worldwide.

I am nominating myself for the Sigma Xi Associate Director role in the hope that the breadth and independence of my research contributions, and my commitment to continuing a career in scientific inquiry, reflect the values the Society was founded to recognize.

Please let me know if you have any questions. Thanks and Regards

Abhishek Jahagirdar DDS MDS