

PROMOTION RECOMMENDATION  
The University of Michigan  
School of Dentistry

Nisha J. D'Silva, BDS, MSD, PhD, associate professor of dentistry, with tenure, School of Dentistry, is recommended for promotion to professor of dentistry, with tenure, School of Dentistry [also associate professor of pathology, without tenure, Medical School].

Academic Degrees

PhD	1997	University of Washington, Seattle
MSD and Residency	1990	Indiana University, Indianapolis (Oral and Maxillofacial Pathology)
BDS (DDS)	1987	University of Bombay, India
HSC	1983	Sophia College, Maharashtra State Board, India (Physics, Chemistry, Biology, Mathematics)

Professional Record

2009 - present	Associate Professor, Department of Pathology, University of Michigan Medical School
2008 – present	Associate Chair, Periodontics and Oral Medicine,
2007 – present	Associate Professor, with tenure, Department of Periodontics and Oral Medicine, and Donald Kerr Endowed Collegiate Professor of Oral Pathology School of Dentistry, University of Michigan
2006 – 2009	Assistant Professor, Department of Pathology, University of Michigan Medical School
2004 – 2008	Director, Oral and Maxillofacial Pathology Biopsy Service, University of Michigan School of Dentistry
2002 – 2007	Director, Head and Neck Cancer Tissue Core, University of Michigan Cancer Center
2000, 2003	Interim Director, Oral and Maxillofacial Pathology Biopsy Service, University of Michigan, School of Dentistry
1998 – 2007	Assistant Professor, Department of Oral Medicine, Pathology, Oncology, University of Michigan (Department merged with Periodontics, Prevention, and Geriatrics to become Periodontics and Oral Medicine in September 2005.)
1994- 1998	Acting Instructor, Department of Oral Biology, University of Washington, Seattle, Washington
1987-1990	Associate Instructor, General Pathology Laboratory, Indiana University, Indianapolis, Indiana.

Summary of Evaluation:

Teaching:

Professor D'Silva is an excellent lecturer and mentor to her students. She performs both clinical and didactic teaching at multiple academic levels. She is the director for course DH393 *General and Oral Pathology for Dental Hygiene Students*. She is co-director for OP625 *Sophomore Oral Pathology Laboratory for Dental Students* and 624 *Oral Pathology for Sophomore Dental Students*. She is a lecturer for DentED 614 *Clinical Oral Pathology for Dental Residents; Integrated Medical*

*Sciences III* (2004-present); and *Colloquium 824 for Senior Dental Students*. Previously she taught Pathology 580/630 *General Pathology for Dental and Graduate Students* (1999-2003); BMS 513 *Biology of salivary glands* (2001-2004); and was discussion facilitator for the Perio 782 Graduate Periodontics Classic Literature Seminar (2008, 2010). Professor D'Silva has also taught several continuing education courses.

Beyond her teaching at the didactic and clinic levels, Professor D'Silva also excels as a mentor. She has been a strong and supportive advisor for many students during their research rotations and fellowships including: 14 undergraduate students, seven graduate students, nine dental school students in elective rotations and summer fellowships, three medical school residents in research rotations, five post-doctoral fellows, and five pathology residents. Professor D'Silva has also been the thesis advisor for three students and a member of the thesis committees for five students and PhD qualifying examiner for four students in the School of Dentistry's Oral Health Sciences program. Her success as a mentor is most evident from the awards received by her students including: two prestigious NIH individual fellowship awards (2010), an American Association for Dental Research fellowship (2010); Dental Student Travel Award for the American Academy of Oral and Maxillofacial Pathology meeting (2010); first and third place, post-doctoral category, Dental School Research Day (2010); the Dziewiatkowski Award from the School of Dentistry, Department of Biologic and Materials Sciences (2005); the Gorlin Award for excellence in research from the American Academy of Oral and Maxillofacial Pathology (2005); the Hatton Award in the post-doctoral category from the American Association of Dental Research (2005); first prize in the post-doc/staff category at the School of Dentistry's Research Day (two consecutive years 2002, 2003); a scholarship from Kalamazoo College for her student to present research at the American Association of Dental Research (2003), and third prize in the Current Topics category at Research Day (2002). Professor D'Silva is devoted to her students and demands quality performance from them while making sure that the students have a very encouraging and successful experience.

#### Research:

Professor D'Silva has an internationally recognized research program. Her research is dedicated to the study of head and neck cancer with three areas of specific focus that include the role of rap1, early detection, and revealing biomarkers for prediction of treatment response. Rap1 is a small GTP-binding protein found in the development and progress of head and neck cancer. Her research focuses on the role of rap1 in integrating the loss of cell adhesion with cell invasion and migration in keratinocytes. Early detection is critical to increasing the survival rate for patients with head and neck cancer. In a collaborative project with Dr. Arul Chinnaiyan, professor of pathology, Professor D'Silva's research is designed to profile the immune response to head and neck cancer with the notion that these antibodies will form the basis of a serum-based early detection assay. Just as early detection is critical to increase survival, the research to reveal possible biomarkers for prediction of treatment response in head and neck cancer is vital to discovering new and innovative treatment procedures. Professor D'Silva's areas of research are truly crucial for understanding the path of onset and growth of cancer of the head and neck.

Professor D'Silva is successful in obtaining outside funding and has received 28 grants from internal and external sources. Currently, she is the principal investigator on two grants from NIH/NIDCR, and she is the pathologist for the NIH NCI NIDCR SPORE grant. She is also a mentor on two additional grants from the NIH. Professor D'Silva's ability to obtain funding from external sources and to be sought to participate on grants with colleagues is an excellent indication of the respect she has gained from the scientific and oral health communities.

Professor D'Silva's research endeavors have led to an impressive list of publications. She currently has 42 peer-reviewed publications either published or accepted for publication. She is first author on eight publications, second or third author on ten publications and senior author on 11 of these publications, indicating her direct contribution to the studies presented in these papers and her ability to be an effective collaborator on other projects. The quality of Professor D'Silva's research is reflected by the impact of the peer-reviewed journals in which she publishes. She has published in the top journals in her field.

Professor D'Silva's long-term research goal is to translate her research findings into therapeutic applications. Beyond her excellent research performance, her presentations are impressive and she has gained national and international recognition for her research as evidenced by her invitations to present her research at other universities and professional meetings.

#### Recent and Significant Publications

- Banerjee R, Mani R, Russo N, Scanlon CS, Tsodikov A, Jing X, Cao Q, Palanisamy N, Metwally T, Inglehart RC, Tomlins S, Bradford C, Carey T, Wolf G, Kalyana-Sundaram S, Chinnaiyan A, Varambally S, D'Silva NJ. The tumor suppressor gene rap1GAP is silenced by mir-101-mediated EZH2 overexpression in invasive squamous cell carcinoma. *Oncogene*, 20;30(42):4339-49.
- Van Tubergen E, Vander Broek R, Lee J, Wolf G, Carey T, Bradford C, Prince M, Kirkwood KL, D'Silva NJ. Tristetraprolin regulates IL-6 which is correlated with tumor progression in head and neck squamous cell carcinoma. 2011 *Cancer*, Jun 15;117(12):2677-89.
- Banerjee R, Henson B, Russo N, Tsodikov A, D'Silva NJ. Rap1 mediates Galanin receptor 2-induced proliferation and survival in squamous cell carcinoma. 2011 *Cellular Signalling*, 2011 Jul; 23(7):1110-8. Epub 2011 Feb 21. Feb 21. [Epub ahead of print]. PMC3154567.
- Goto M, Mitra RS, Liu M, Lee J, Henson BS, Carey T, Bradford C, Prince M, Wang C-Y, Fearon ER, D'Silva NJ. Rap1 stabilizes  $\beta$ -catenin and enhances  $\beta$ -catenin-dependent transcription and invasion in squamous cell carcinoma of the head and neck. *Clin Cancer Res*. 2010 16(1):65-76.
- Mitra RS, Goto M, Lee JS, Maldonado D, Taylor JMG, Pan Q, Carey TE, Bradford CR, Prince ME, Cordell K, Kirkwood KL, D'Silva NJ. Rap1GAP promotes invasion via induction of MMP-9 secretion, which is associated with poor survival in early N-stage squamous cell carcinoma. *Cancer Research* 2008 68(10):3959-69.

#### Service:

Professor D'Silva contributes a major effort to service for the school, the university and at the national level. Currently she is the associate chair of the Department of Periodontics and Oral Medicine. Previously she served as interim director and then director of the Oral and Maxillofacial Pathology Biopsy Service. Professor D'Silva has served on numerous committees within the school and she receives excellent feedback on her valuable contributions to the goals of these committees.

#### External Reviewers:

Reviewer (A): "Dr. D'Silva has many funded research grants and also has a history of receiving teaching grants. She is a rare faculty member who does research and still teaches and mentors. Her 49 publications are of excellent quality and scholarly impact. Her 64 abstracts show cutting edge research. In relation to her peer group, this is an extensive list of publications and abstracts."

Reviewer (B): "Dr. D'Silva is a very good mentor. She has mentored and is still mentoring three PhD students, all of whom have done well, securing either a subsequent academic appointment or receiving various awards (including one Hatton Award winner) and competitive grants. She also has

mentored many undergraduate and dental students, as well as residents in Plastic Surgery and Otolaryngology, many of whom also received awards for their research.”

Reviewer (C): “Dr. D’Silva has actively participated in the development of the School of Dentistry and University. Her input in the development and advancement of the education, mentoring and advising has been significant. She has had a leadership role in curriculum development and implementation. She has actively contributed to faculty governance, as well as professional organizations. She is a member of the Editorial Board of three journals and has functioned as *ad hoc* Reviewers regularly.”

Reviewer (D): “Dr. D’Silva’s work has blossomed greatly over the past few years. The major focus of her work has been on the role of p16 in oral cancer. She has become recognized as a leader in this field and I would anticipate this to continue in the future”

Reviewer (E): “Dr. D’Silva has a rising national profile. As a 2006 graduate of the ADEA Leadership Institute and a graduate of ELAM, she has been named a member of the AADR Hatton Award committee and currently is co-chair of the same committee. For a past winner of that prestigious award, it must be a wonderful achievement to become its current co-chair.”

Reviewer (F): “Dr. D’Silva struck me as an exceptionally thoughtful individual with true leadership qualities who cares deeply about her research, her trainees, and her institution.”

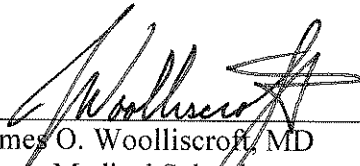
Reviewer (G): “I believe her accomplishments have brought prestige to the University of Michigan and warrant her promotion to professor.”

Summary of Recommendation:

Professor D’Silva is a dynamic teacher, mentor, scholar, researcher and she is generous with her service activities. Professor D’Silva has shown dedication to the University with her outstanding accomplishments and has gained recognition as a gifted researcher and adept clinician dedicated to the academic community. I hereby recommend Nisha J. D’Silva, BDS, MSD, PhD for promotion to professor of dentistry, with tenure, School of Dentistry.



Peter J. Polverini, DDS, DMSc  
Dean, School of Dentistry



James O. Woolliscroft, MD  
Dean, Medical School

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