

PROMOTION RECOMMENDATION  
THE UNIVERSITY OF MICHIGAN  
MEDICAL SCHOOL  
DEPARTMENT OF PATHOLOGY

Nisha J. D'Silva, B.D.S., M.S.D., Ph.D., associate professor of pathology, without tenure, Department of Pathology, Medical School, is recommended for promotion to professor of pathology without tenure, Department of Pathology, Medical School [also professor of dentistry, with tenure, School of Dentistry].

Academic Degrees:

Ph.D.	1997	University of Washington, Seattle
M.S.D.	1990	Indiana University
B.D.S.	1987	University of Bombay, India

Professional Record:

2012- present	Professor of Periodontics and Oral Medicine, University of Michigan
2009-present	Associate Professor of Pathology, University of Michigan
2007-2012	Associate Professor of Periodontics and Oral Medicine, University of Michigan
2006-2009	Assistant Professor of Pathology, University of Michigan
1998-2007	Assistant Professor of Oral Medicine, Pathology, Oncology, University of Michigan

Summary of Evaluation:

Teaching: Dr. D'Silva has made an enormous commitment to dental school education where she has directed numerous courses, developed curricula including virtual microscope and living textbooks for the oral pathology laboratory. She is regarded as an enthusiastic, dedicated and effective educator. She also teaches in the research laboratory where students include undergraduates, dental students, graduate students and post-doctoral research fellows. She currently teaches a course on neoplasia to sophomore dental students, a diagnostic sciences course for which she teaches all but one lecture, a colloquium for senior dental students on soft tissue tumors, and a graduate periodontics classic literature seminar. She has also been the thesis advisor for five Ph.D. students.

Research: Dr. D'Silva's research centers on head and neck cancer biology including mechanisms and biomarkers of tumor progression, galanin and galanin receptors in head and neck cancer, cytokines and their inhibitory proteins that may modify tumor progression, salivary cytokines that may serve as treatment response markers in head and neck cancer patients, antibodies in serum that may form an early detection assay for head and neck cancer, treatment resistance including

mechanisms and biomarkers and in vitro and in vivo models for head and neck cancer. She has also been involved in histopathology studies on unusual oral lesions and metastases to the jaws. In recognition of her scholarly activities, she has been invited to give numerous talks at other universities and internationally, most recently in Brazil. She is on the editorial boards of several prestigious journals and has been an ad hoc reviewer for many more. She is also a member of the NIH study section that reviews KFR03 awards. Her research has been continually funded from many sources, most of the funding coming from the NIH. She was the first recipient from the School of Dentistry of the MICHR Distinguished Clinical and Translational Mentor Award and the first recipient from North America for the Rod Kwason Prize Lecture from the International Association of Oral Pathologists and the Royal College of Physicians and Surgeons of Glasgow. Since her promotion to associate professor of pathology in 2009, she has been the author or co-author of 38 manuscripts, on 17 of which she has been the senior author. These are published in high-quality peer-reviewed journals including *Cancer*, *Cellular Signaling*, *Oncogene*, *Epigenetics*, *Clinical Cancer Research* and *Nature Communications*.

#### 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* 30:4339-4349, 2011.

Russo N, Wang X, Liu M, Banerjee R, Goto M, Scanlon C, Metwally T, Inglehart R, Tsodikov A, Duffy S, van Tubergen E, Bradford C, Carey T, Wolf G, Chinnaiyan AM, D'Silva NJ: A novel approach to biomarker discovery in head and neck cancer using an autoantibody signature. *Oncogene* 32:5026-5037, 2013.

Van Tubergen E, Banerjee R, Liu M, VanderBroek R, Light E, Kuo S, Feinberg S, Willis A, Wolf G, Carey T, Bradford C, Prince M, Worden F, Kirkwood K, D'Silva NJ: Inactivation or loss of TTP promotes invasion in head and neck cancer via transcript stabilization and secretion of MMP9, MMP2, and IL-6. *Clinical Cancer Research* 19:1169-1179, 2013.

Banerjee R, Russo N, Liu M, Basrur V, Bellile E, Palanisamy N, Scanlon CS, van Tubergen E, Inglehart RC, Metwally T, Mani R, Yocum A, Nyati M, Castilho R, Varambally S, Chinnaiyan AM, D'Silva NJ: TRIP13 routes DNA repair to error-prone non homologous end joining to promote chemoresistance in human head and neck cancer. *Nature Communications* 5:4527, 2014.

Scanlon CS, Banerjee R, Inglehart RC, Liu M, Russo N, Hariharan A, van Tubergen EA, Corson SL, Asangani IA, Mistretta CM, Chinnaiyan AM, D'Silva NJ: Galanin modulates the neural niche to favour perineural invasion in head and neck cancer. *Nature Communications* 6:6885, 2015.

Service: Dr. D'Silva has been on numerous committees in the university, the School of Dentistry and in the Medical School including the Head and Neck SPORE Operations Committee, the Provost's Faculty Advisory Committee, School of Dentistry Executive Committee, Admissions Committee and the Financial Domain Committee of Strategic Planning. At the national and international levels, she has been on several committees of the American Academy of Oral and Maxillofacial Pathology, the American Association for Dental Research, and the Oral Medicine and Pathology Scientific Group. Thus, it is clear that Dr. D'Silva has made a significant commitment to her profession.

Professional Work: Dr. D'Silva is a highly trained and highly experienced diagnostic dental pathologist with expertise in all aspects of this highly sophisticated specialty. For the past seven years, she has signed about 25 to 33% of all biopsies including direct immunofluorescence cases for diagnosis of vesicular bullous disorders. She is regarded as a superb diagnostician.

External Reviewers:

Reviewer A: "She has been a very consistent contributor to the head and neck cancer literature, has been innovative in her discoveries, and thoughtful in the assessment of others' work... Dr. D'Silva's scholarly pursuits, her numerous administrative efforts, her history of mentorship, and presence in national committees would certainly put her in the upper echelon of cancer researchers nationally."

Reviewer B: "...Dr. D'Silva has successfully established herself as one of the rare triple threat oral pathologists who is NIH funded, educates and performs diagnostic pathology. There are fewer than 5 of these individuals in the United States... As such, her standing would place her at the very top of her peer group."

Reviewer C: "I have reviewed her curriculum vitae and can see that she continues to have a very steady publication track record in moderate to high impact specialty journals and she continues to have multiple grants funded by the NIH. Particularly noteworthy, is her recent paper 'Galanin modulates the neural niche to favour perineural invasion in head and neck cancer,' published in Nature Communications in 2015. Perineural invasion is a common mechanism of oral cancer recurrence and the biologic underpinnings of this have been poorly understood, and this paper sheds considerable light on the subject."

Reviewer D: "Her work on signaling pathways that contribute to the development of head and neck cancer have been accepted or published by high impact journals with a broad readership, and her publication rate has been exceptionally strong in recent years... While her independent contributions to this field are clear by the preponderance of senior author publications, Dr. D'Silva is also clearly talented at forging successful (and well-funded) interdisciplinary collaborations, a key requirement for continued success in this age of team science."

Reviewer E: "Dr. D'Silva's teaching shows evidence of innovation as well as curricular design and implementation... Her research is timely, focused and clinically relevant... I am familiar with the research environment in head and neck cancer and Nisha's productivity is comparable to

the world's best. She is functioning at a high level and I believe through her accomplishments, she has been an effective ambassador for her profession, bringing honor and prestige to the University of Michigan globally.”

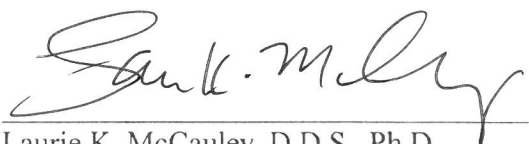
Summary of Recommendation:

Dr. D'Silva is an internationally renowned scientist with expertise in progression of head and neck cancers. She is also a superb teacher and has dedicated a great amount of time and effort in educating students at all levels, especially undergraduate dental students and student scientists in her laboratory. She is also a leader in her field with contributions to numerous organizations and committees, both locally and nationally. I am pleased to recommend Nisha J. D'Silva, B.D.S., M.S.D., Ph.D., for promotion to professor of pathology, without tenure, Department of Pathology, Medical School.



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Marschall S. Runge, M.D., Ph.D.  
Executive Vice President for Medical Affairs  
Dean, Medical School



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Laurie K. McCauley, D.D.S., Ph.D.  
Dean, School of Dentistry

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