PROMOTION RECOMMENDATION
The University of Michigan
School of Dentistry

Lucia Cevidanes, assistant professor of dentistry, School of Dentistry, is recommended for promotion to associate professor of dentistry, with tenure, School of Dentistry.

Academic Degrees:

Certificate in Orthodontics	2008	University of North Carolina
PhD in Oral Biology	2003	University of North Carolina
MS in Orthodontics	1994	Instituto Metodista de Ensino Superior, Brazil
DDS	1989	Universidade Federal de Goiás, Brazil

Professional Record:

2011 – present	Assistant Professor, Orthodontics and Pediatric Dentistry, School of Dentistry, University of Michigan
2005 – 2007	Clinical Assistant Professor, Department of Orthodontics, University of North Carolina
2005 – 2007	Pre-doctoral Clinical Director, Department of Orthodontics, University of North Carolina
2003 – 2005	Clinical Instructor, Department of Orthodontics, University of North Carolina
2003 – 2005	Post-Doctoral Fellow, Department of Orthodontics, University of North Carolina
2002 – 2003	Adjunct Instructor, Department of Orthodontics, University of North Carolina
1998 – 2003	Research Assistant, Oral Biology, PhD Program, University of North Carolina

Summary of Evaluation:

Teaching: Professor Cevidanes is an accomplished educator teaching pre-doctoral and graduate students in clinic and didactic courses. Since joining the University of Michigan in 2011, Professor Cevidanes has served as the director of the pre-doctoral orthodontics program coordinating the clinical and didactic orthodontic education of dental students. In this capacity, she serves as a course director of two didactic courses and three clinical courses. She is also the director of two courses in the graduate orthodontic program. Following her arrival at the University of Michigan in 2011, she participated in the orthodontics pre-doctoral curriculum review and restructured the course manual and syllabi for two pre-doctoral orthodontics courses. Additionally, Professor Cevidanes developed course tools for several of the courses that ultimately enriched the students' learning process. Student comments reflect that she is universally viewed by the school's student population as an excellent instructor. As indicated in her teaching portfolio she highly values the importance in her students' feedback and has incorporated many of their recommendations into the classroom and clinic, including introducing a student orientation session, expanding class time for more hands-on teaching and updating course sessions that effectively improved the students' learning experience. Professor Cevidanes' peer evaluations were uniformly positive stating that she is enthusiastic and engaging, delivering tailored presentations to fit her audience and that she has the ability to move seamlessly from theory to practice. Professor Cevidanes has twice received the American Association of Orthodontics Teaching Fellowship Award reflecting her high standards as an educator.

Professor Cevidanes has been a long and active research mentor to students at various levels. Prior to coming to the University of Michigan, she mentored four Master's research projects and was a committee member on numerous others at the Instituto Metodista in Brazil and at the University of North Carolina. Since arriving at the University of Michigan, she has mentored four Master's Thesis projects, seven pre-doctoral students and has been a committee member on numerous other pre-doctoral and graduate student research and Master's Thesis projects. She continues to actively mentor national and international scholars and post-doctoral trainees on techniques and approaches refined by her research in 3D imaging. Professor Cevidanes lectures nationally and internationally and lists nineteen continuing dental educational courses, five of those at the University of Michigan, since being in her current rank. Professor Cevidanes' enthusiasm as a teacher and dedication to students and the dental community is outstanding.

Research: Professor Cevidanes' research investigates the application of cone beam computed tomography for 3-dimensional (3D) analysis of craniofacial growth and development, treatment outcomes, and as a diagnostic tool in assessing temporomandibular joint (TMJ) disorders. She has significantly impacted the field of 3D imaging in dentistry through her high quality research and the development of algorithms and open-source software. She has a total of 87 peer-reviewed publications. Forty-five have been published since being in her current rank. She is first author on five of these publications and senior author on eight. Many of her writings are in high impact orthodontic journals and have been cited numerous times. Six of her publications have been cited over 100 times, which is highly impressive for a scientist in the early stage of their career.

Professor Cevidanes has demonstrated a strong team-based approach in pursuing her research interest and collaborates extensively with investigators at the University of Michigan and at other institutions, as evidenced by the large number of coauthors on her publications and co-investigators on her grant proposals. Her recent publications cover a broad range of cone beam CT applications, such as its use in monitoring mandibular advancement, use in monitoring orthodontic clinical outcomes, quantitation of mandibular asymmetries, and analysis of TMJ condylar morphology including bony changes in TMJ osteoarthritis. Her most recently awarded R01 project studies the correlation of morphometric CT analysis with biomarkers to help monitor and predict disease progression. Significant papers in this area have already been published by Professor Cevidanes and are a positive impact on the field of orthodontics. Her prior NIH funding includes a K23 award (2006-2011), and an R03 award (2008-2011), in addition to being the PI and a co-investigator on two R01 grants. She has also been the PI on several small foundation grants.

Professor Cevidanes' work is highly regarded in the orthodontic community as demonstrated by the awarding of two B.F. and Helen E. Dewel Awards for most outstanding papers published in the *American Journal of Orthodontics and Dentofacial Orthopedics* (2006, 2012) and the American Association of Orthodontists prestigious Milo Hellman Award (2014) on *Integrating Biology and Imaging of Temporomandibular Joint Health and Disease.*

Overall, Professor Cevidanes is an impressive clinician-scientist who has published extensively and developed an independent, NIH-funded research program.

Recent and Significant Publications:
Cevidanes LH, Walker D, Schilling J, Sugai J, Giannobile W, Paniagua B, Benavides E, Zhu H, Marron JS, Jung BT, Baranowski D, Rhodes J, Nackley A, Lim PF, Ludlow JB, Nguyen T, Goncalves JR, Wolford L, Kapila S, Styner M. 3D osteoarthritic changes in TMJ condylar

morphology correlates with specific systemic and local biomarkers of disease. *Osteoarthritis Cartilage.* 2014; 22: 1657-67.

Cevidanes LHS, Ruellas AC, Jomier J, Nguyen T, Pieper S, Budin F, Stymer M, Paniagua B. Incorporating 3D models in online articles. *American Journal of Orthodontics Dentofacial Orthopedics, 2015 May; 147(5 Suppl):S195-204. PMC4418234.*

Cevidanes LH, Gomes LR, Jung BT, Gomes MR, Goncalves JR, Schilling J, Styner M, Nguyen T, Kapila S, Paniagua B. 3D superimposition and understanding temporomandibular joint arthritis. *Orthodontics and Craniofacial Research,* 2015;18 Supl 1:18-28.

Goncalves JR, Wolford LM, Cassano DS, Porciuncula G, Paniagua B, Cevidanes LH. TMJ condylar changes following maxillomandibular advancement and articular disc repositioning. *J Oral Maxillofac Surg* 2013; 71:1759.e1-15.

De Paula LK, Ruellas ACO, Paniagua B, Styner M, Turvey TA, Zhu H, Wang J, Cevidanes L. One-year assessment of surgical outcomes in Class III patients using CBCT. *Int J Oral Maxillofac Surg.* 2013; 42:780-9.

Service: Professor Cevidanes has served on many important committees at the school level. These include participation in the School of Dentistry's Multiple Mini-Interviews (MMI) Admission; Academic Review Board; Michigan Center for Oral Health Research Advisory Board; MiDent Advisory Committee; Visitor's Faculty Development Resource Committee; Undergraduate Course Directors' Committee and on the school's search committee for the chair position in the department of Cariology, Restorative Sciences and Endodontics. At the department level, she is a member on the Graduate Residents' Admissions Committee and the Full Time Faculty Committee. Professor Cevidanes is a journal reviewer or editorial board member for several scientific journals, including *DentoMaxillofacial Radiology, International Journal of Oral Science, PLOS One, Journal of Dental Research, Journal of Applied Oral Science,* and the *American Journal of Orthodontics and Dentofacial Orthopedics.*

Professor Cevidanes is a member of numerous societies and professional organizations at the national and international levels, including the American and International Associations for Dental Research, American Association of Orthodontists, and the Digital Dentistry Society. She is a recognized speaker in the area of craniofacial imaging of the TMJ and the use of computed tomography in orthodontic treatment outcomes and has given numerous continuing education courses at both national and international venues. Professor Cevidanes is a diplomate of the American Board of Orthodontics and provides patient care in the school's orthodontic faculty practice. It is without hesitation that Professor Cevidanes' contributions to service are outstanding for a faculty at the assistant professor level.

External Reviewers:
Reviewer (A): "She is currently the PI on a $1.3 million dollar grant and has an application in for another. She has been a constant in the literature since 1992, with over 83 articles published in peer-reviewed journals, four more are in press or accepted, and six have been submitted. This is an extraordinary volume of publications for someone who is as an assistant professor! Couple that with 18 book chapters, invited local, national and international research lecturers, journal reviews and a consistent record of grant funding, and it is quite obvious to me that this is a very motivated dedicated individual."

Reviewer (B): "In her tireless dissemination efforts, Dr. Cevidanes has received and trained post-doctoral fellows from Australia, Belgium, Chile, Cyprus, Denmark, France, Italy, Jordan, Korea,

Sweden and Turkey. She has attracted outstanding research collaborators that have promoted this work at national and international recognition levels"
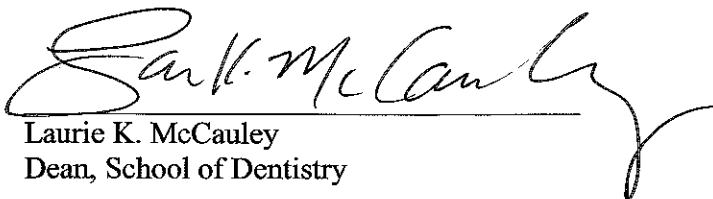
Reviewer (C): "Dr. Cevidanes has excelled in the area of scholarly activity and her achievements have been continuous and sustained. She is the national and internationally recognized expert on the application of Cone Bean CT to orthodontic research questions, and perhaps to all of dentistry. With Dr. Cevidanes' credentials, history of service, teaching and recognition for scholarly activity, I have no doubt that she will continue to have a high impact on dental academics and the orthodontic specialty well into the future."

Reviewer (D): "Her article titled 'Image analysis and superimposition of 3-dimenstional cone-beam computed tomography models' authored by Drs. Cevidanes, Styner and Proffit published in the American Journal of Orthodontics and Dentofacial Orthopedics (AJO-DO) in 2006 has been one of her most influential manuscripts, having been cited at least 229 times by other authors."

Reviewer (E): "She has an innovative and challenging style as a classroom teacher and is also an experienced and skilled mentor at the predoctoral and graduate levels of education. She has the rare qualities of compassion and a profound understanding and clinical judgement of difficult and complex problems. Her integrity impacts students and colleagues from whom she gains respect while having the ability to transmit knowledge to students at different levels of expertise."

Summary of Recommendation:
Professor Cevidanes has made many remarkable accomplishments in her professional career as an educator and researcher. Her research into cone beam computed tomography for 3-dimensional analysis of craniofacial growth and development, treatment outcomes, and as a diagnostic tool in assessing temporomandibular joint dysfunction in arthritis has secured her NIH funding for future years. Her dedication to her research is evidenced by her numerous publications in high impact journals and the quality is evidenced by the prestigious honors and awards she has received, such as the Milo Hellman Award. This recognition is an indicator of the respect and high regard of her scholarly activity by the orthodontic profession and research community. She is a valuable and recognized contributor to dental academics and is well known among educators and prominent clinicians nationally and internationally. Professor Cevidanes' teaching activities, which she has accomplished at the highest standards, exceed the expectations for a junior professor. She is a brilliant mentor to undergraduate, graduate, post-graduate and research fellows, at the University of Michigan and at other institutions. Professor Cevidanes has achieved scholarly independence, is nationally and internationally recognized as an expert in her field, has published broadly in high impact peer-reviewed journals, has secured sustained external research funding and contributes significantly to the schools' teaching and service mission. It is with great enthusiasm that the School of Dentistry's Executive Committee and I recommend Lucia Cevidanes for promotion to associate professor of dentistry, with tenure, School of Dentistry.

Laurie K. McCauley
Dean, School of Dentistry

May 2016