

PROMOTION RECOMMENDATION
The University of Michigan
School of Dentistry

Livia Tenuta, associate professor of dentistry, without tenure, School of Dentistry, is recommended for the granting of tenure to be held with her title of associate professor of dentistry, School of Dentistry.

Academic Degrees:

Ph.D.	2005	Cariology, Piracicaba Dental School, University of Campinas, Piracicaba, Brazil
M.S.	2001	Pediatric Dentistry, Bauru Dental School, University of São Paulo, Bauru, Brazil
D.D.S.	1997	Bauru Dental School, University of São Paulo, Bauru, Brazil

Professional Record:

2018-present	Associate Professor without tenure, Department of Cariology, Restorative Sciences, and Endodontics, University of Michigan School of Dentistry
2012-2017	Associate Professor, Physiological Sciences, Piracicaba Dental School, University of Campinas
2007-2012	Assistant Professor, Physiological Sciences, Piracicaba Dental School, University of Campinas
2001-2002	Assistant Professor, Pediatric Dentistry, Department of Dentistry, University Center of Maringa
2000-2002	Assistant Professor, Pediatric Dentistry, Department of Dentistry, State University of Maringa

Summary of Evaluation:

Teaching: Professor Tenuta is heavily involved in teaching graduate, pre-doctoral, and dental hygiene level courses at the School of Dentistry. She is the course director for one graduate didactic course, Advanced Clinical Cariology, and she lectures in Advanced Cariology Seminar. At the pre-doctoral level, she lectures in Cariology I and II, and Clinical Foundations I. She is a guest lecturer in one dental hygiene course. Her student and peer evaluations are very strong indicating she is well-prepared, delivers content in a clear and relevant manner, and is engaging with students. In rank she has served as a member on five Ph.D. candidate thesis projects. She has mentored nine graduate students, six pre-doctoral students, three undergraduate students, two high school students, and three visiting scholars. As a testament to her mentorship, Professor Tenuta's mentees have received eight research awards at the international, national, state and institutional levels.

With a profound passion for teaching, Professor Tenuta demonstrates exceptional dedication and innovation. Her teaching philosophy expresses critical thinking and inspires deep comprehension of concepts. She integrates systematic reviews and meta-analyses of scientific literature into her teaching, emphasizing the importance of evidence in clinical practice. Her commitment to creating an equitable and diverse learning environment ensures every student has the opportunity to thrive. Her teaching demonstrates a holistic approach that encompasses teaching innovation, evidenced-based instruction, interdisciplinary collaboration, and inclusive methodologies.

Research: Professor Tenuta's scholarly focus is in biochemistry of oral biofilm and fluoride in the oral cavity and its role in caries control. She has established herself nationally and internationally as an expert in her field, evidenced by her invitations to speak at national and international meetings in eight different countries. She is the principal investigator on one major National Institutes of Health (NIH) grant, and a co-principal investigator on another. She has been a co-investigator on six additional NIH grants, and has obtained funding as a principal investigator from Michigan Institute for Clinical and Health Research (MICHR). She is the principal investigator on one industry grant from 3M Sciences. Professor Tenuta has 24 publications in rank and is first or senior author on 10 of those.

Professor Tenuta's research is highly collaborative. She has successfully expanded her research focus from fluoride reservoirs in dental biofilm to innovative approaches in fluoride-based therapies since being at Michigan and by collaborating with experts in various fields. She developed fluoride-based nanoparticle and showed a significant increase in fluoride retention in dental biofilm. Her dedication to translating her research into practical solutions is demonstrated by her involvement in entrepreneurial activities, including patent applications for her innovative materials. Demonstrating her creativity and holistic approach to dental research, she utilizes data to predict caries outcomes, exploring the potential for electronic health records and interdisciplinary collaborations.

Recent and Significant Publications

Fernández CE, Brandao ACS, Bicego-Pereira EC, Del Bel Cury AA, Cury JA, Tenuta LMA.

05/19/2022. Effect of pH and titratable acidity on enamel and dentine erosion. *Clinical Oral Investigations*. 26, 5867-5873.

Jones KA, Jones N, Tenuta LMA, Bloembergen W, Flannagan SE, González-Cabezas C, Clarkson B, Pan LC, Lahann J, Bloembergen S. 09/26/2022. Convolution Neural Networks and Targeted Fluorescent Nanoparticles to Detect and ICDAS Score Caries. *Caries Research*. 56(4):419-428.

Tenuta LMA, Canady C, Eber RM, Johnson L. 04/01/2022. Agreement in Medications Reported in Medical and Dental Electronic Health Records. *JDR Clinical and Translational Research*, 7(2), 189-193.

Head D, Marsh PD, Devine DA, Tenuta LMA. 08/01/2021. In Silico Modeling of Hyposalivation and Biofilm Dysbiosis in Root Caries. *Journal of Dental Research*, 100(9), 977-982.

Pagotto LL, Spinola MDS, Nóbrega DF, Cury JA, Tenuta LMA. 01/01/2021. Fluoride Binding to *Streptococcus mutans* Pellets Rich in Extracellular Polysaccharides. *Caries Research*, 55(3), 234-237

Service: Professor Tenuta engages in service at the school, national and international levels. Her participation in important school committee emphasizes her dedication to the school's mission. Her devotion to advancing the field of Cariology is evident through her contributions to various societies. Her reputable standing in the scientific community is highlighted by her leadership roles in renowned institutions such as the International Association of Dental Research, American Association for Dental Oral Craniofacial Research, American Academy of Cosmetic Dentistry and the Organisation for Caries Research. At the School of Dentistry, she has served on three faculty search committees, is a member of the DDS admission committee, research day poster judge, Master's Oral Health Sciences (MS-OHS) program planning committee. Her devotion for advancing the field of Cariology is evident through her contributions to various societies.

External Reviewers:

Reviewer A: "My overall assessment is that Dr. Tenuta has had a productive career as a scientist and teacher. Based on the materials presented and reviewed, I believe Dr. Tenuta meets the requirement of Associate Professor the Tenure at the University of Michigan."

Reviewer B: "In addition to Dr. Tenuta's academic skills, she is a professional with the highest ethical standards and an excellent person to work with. She is an outstanding team builder and player and does not refrain from assuming leadership. Dr. Tenuta has been involved in critical leadership roles in dental research organizations..."

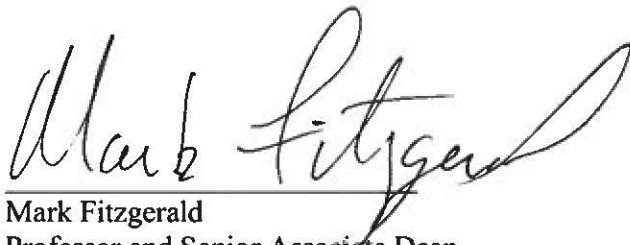
Reviewer C: "I believe that Dr. Tenuta has earned an international reputation in her field, as evidenced by invitations to speak in Brazil (her home country), Chile, Denmark, Belgium, Hungary, Switzerland, Canada and Malaysia."

Reviewer D: "I have always had a great admiration for Dr Tenuta. I consider her work on fluoride and biofilm to be of the highest international standard. I did lose sight of her research work a little bit after her move to Michigan, but reviewing her recent activities in this field for this review request, I have seen that she has broadened her scope and moved into clinical and data-driven research, while keeping up her exceptionally high standard of quality and integrity."

Reviewer E: "In summary, Dr. Tenuta has joined your faculty at a time when funding in general has been an issue. This climate has impacted many individuals to the point that some even have left academia. Dr. Tenuta accomplishments these past few years are a demonstration that she has the creativity, intelligence, stamina, and resilience to succeed. One just may wonder what she could have done if the times were more favorable."

Summary of Recommendation:

Professor Tenuta is a tremendous asset to the University of Michigan and School of Dentistry with a strong record of teaching, research and service. It is with the support of the Executive Committee, that I recommend Livia Tenuta for the granting of tenure to be held with her title of associate professor of dentistry, School of Dentistry.



Mark Fitzgerald
Professor and Senior Associate Dean
School of Dentistry

May 2024