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IADR and AADOCR Name Recipient of the 2024 IADR/AADOCR *Journal of Dental Research* Cover of the Year Award

Alexandria, VA, USA – The American Association for Dental, Oral, and Craniofacial Research (AADOCR) and the International Association for Dental, Oral, and Craniofacial Research (IADR) have awarded the 2024 IADR/AADOCR *Journal of Dental Research* Cover of the Year Award to the paper, “[Improved Visualization of Oral Microbial Consortia](#).” The recipient was recognized during the Opening Ceremonies of the 54th Annual Meeting of the AADOCR, which was held in conjunction with the 49th Annual Meeting of the Canadian Association for Dental Research, on March 12-15, 2025 in New York, NY.

In this study, authors S.T. Ramirez-Puebla, J.L. Mark Welch, and G.G. Borisy sought to overcome the limitations associated with whole-mount imaging. Their approach involved embedding in hydrophilic plastic, followed by physical sectioning and hybridization with multiplexed fluorescent oligonucleotide probes. Samples were visualized by spectral imaging and linear unmixing. Optical sections from each physical section were obtained and concatenated into a z-stack for 3D reconstruction. Imaging sections with reduced thickness and 3D complexity improved both probe penetration and visualization of bacterial taxa that are difficult to accurately discern in whole-mount preparations.

The study concluded that the application of methacrylate embedding and sectioning to the analysis of TD biofilm structure with spectral imaging fluorescence in situ hybridization provides a complementary approach to the whole-mount analysis previously employed, with benefits and drawbacks to each. The spatial complexity of bacterial consortia requires a combination of strategies, including detailed volumetric



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reconstructions of entire segments of biofilm, ranging in the hundreds of microns, to be fully and efficiently captured.

Selected by the IADR/AADOCR Publications Committee, the award honors the cover that features an aesthetically pleasing, scientifically novel image that enhances the impact of the article.

About the *Journal of Dental Research*

The IADR/AADOCR *Journal of Dental Research* (JDR) is a multidisciplinary journal dedicated to the dissemination of new knowledge in all sciences relevant to dentistry and the oral cavity and associated structures in health and disease. The *JDR* Editor-in-Chief is Nicholas Jakubovics, Newcastle University, England. Follow the *JDR* on Twitter at [@JDentRes](https://twitter.com/JDentRes).

About IADR

The International Association for Dental, Oral, and Craniofacial Research (IADR) is a nonprofit organization with a mission to drive dental, oral, and craniofacial research for health and well-being worldwide. IADR represents the individual scientists, clinician-scientists, dental professionals, and students based in academic, government, non-profit, and private-sector institutions who share our mission. Learn more at www.iadr.org.

About AADOCR

The American Association for Dental, Oral, and Craniofacial Research (AADOCR) is a nonprofit organization with a mission to drive dental, oral, and craniofacial research to advance health and well-being. AADOCR represents the individual scientists, clinician-scientists, dental professionals, and students based in academic, government, non-profit, and private-sector institutions who share our mission. AADOCR is the largest division of IADR. Learn more at www.aadocr.org.