



2020 Clinical Research in Periodontology Award

Each year, the American Academy of Periodontology (AAP) presents the Clinical Research Award, sponsored by Quintessence Publishing Company, to an outstanding published scientific study with direct clinical relevance in periodontics. The winning study must follow established scientific methods for a human study, be published in English in a scientific journal during the previous calendar year, directly apply to the practice of periodontics, and provide new information that can be readily used by practitioners in the evaluation of patients.

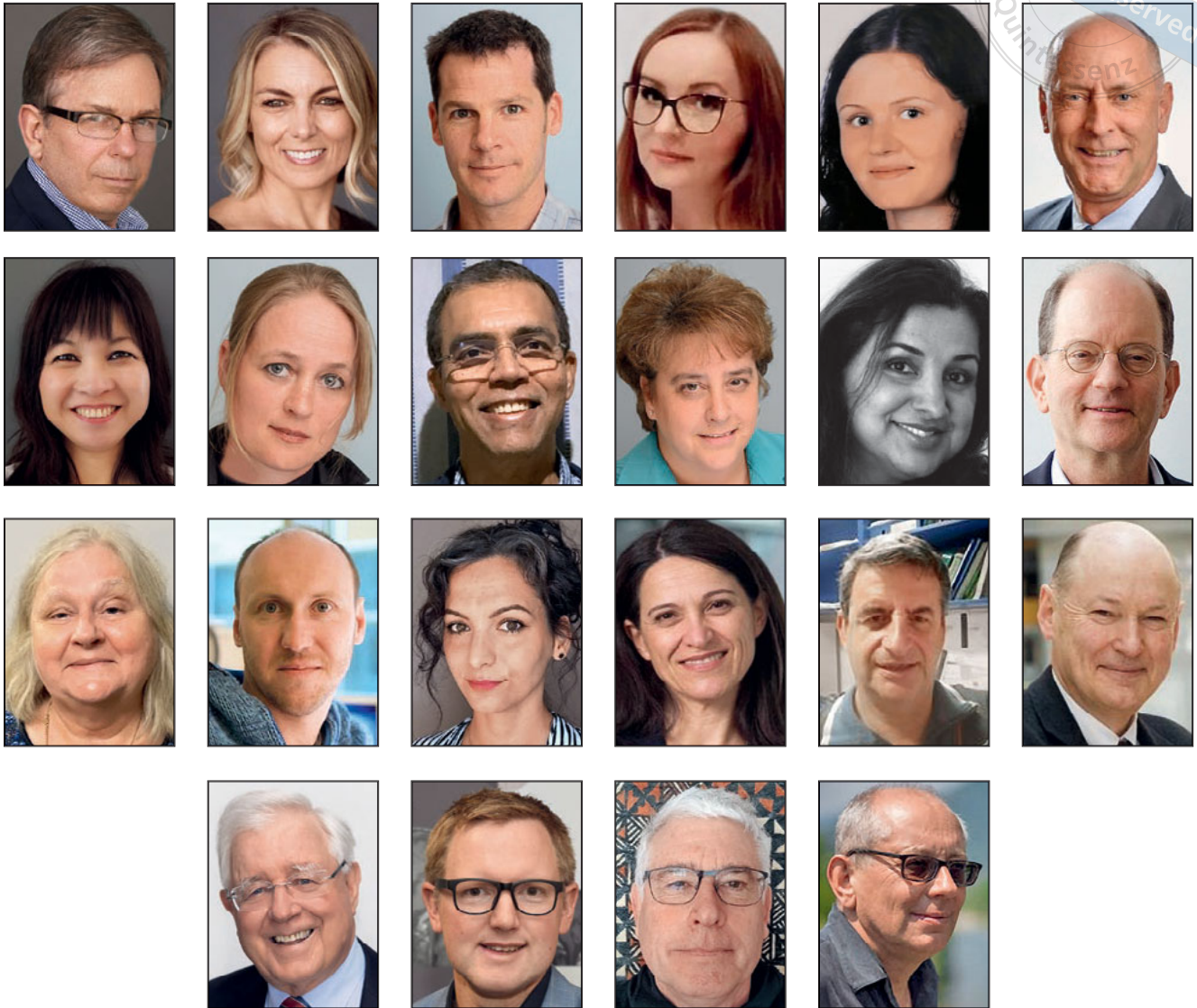
The 2020 award recognized the study titled "*Porphyromonas gingivalis* in Alzheimer's Disease Brains: Evidence for Disease Causation and Treatment with Small-Molecule Inhibitors," by Stephen S. Dominy,

Casey Lynch, Florian Ermini, Malgorzata Benedyk, Agata Marczyk, Andrei Konradi, Mai Nguyen, Ursula Haditsch, Debasish Raha, Christina Griffin, Leslie J. Holsinger, Shirin Arastu-Kapur, Samer Kaba, Alexander Lee, Mark I. Ryder, Barbara Potempa, Piotr Mydel, Annelie Hellvard, Karina Adamowicz, Hatice Hasturk, Glenn D. Walker, Eric C. Reynolds, Richard L. M. Faull, Maurice A. Curtis, Mike Dragunow, and Jan Potempa. The study authors accepted the award virtually at the American Academy of Periodontology's 2020 Annual Meeting.

The study, which appeared in the January 2019 issue of *Science Advances*, evaluated the effect of small-molecule inhibitors on the neurotoxicity associated with gingipains,

which have been identified in the brains of Alzheimer's disease patients. Gingipain inhibition reduced the bacterial load in an established *Porphyromonas gingivalis* infection (a keystone pathogen in periodontitis), blocked the production of AB₁₋₄₂, reduced neuroinflammation, and rescued neurons in the hippocampus. Considering the myriad neurotoxic effects of gingipains that have been found in vitro and in vivo, these data suggest that gingipain inhibition could be valuable in the treatment of *P. gingivalis* brain colonization and degeneration in Alzheimer's disease.

To view the study's abstract, please visit <https://pubmed.ncbi.nlm.nih.gov/30746447/>. For information about the AAP Clinical Research Award, please visit www.perio.org/members/ma/ma.html#clinical.



The recipients of the 2020 Clinical Research Award are Stephen S. Dominy, Casey Lynch, Florian Ermini, Malgorzata Benedyk, Agata Marczyk, Andrei Konradi, Mai Nguyen, Ursula Haditsch, Debasish Raha, Christina Griffin (not pictured), Leslie J. Holsinger, Shirin Arastu-Kapur, Samer Kaba (not pictured), Alexander Lee (not pictured), Mark I. Ryder, Barbara Potempa, Piotr Mydel, Annelie Hellvard, Karina Adamowicz (not pictured), Hatice Hasturk, Glenn D. Walker, Eric C. Reynolds, Richard L. M. Faull, Maurice A. Curtis, Mike Dragunow, and Jan Potempa.