NZDA Research Grants Supported by ICD

The New Zealand Dental Association is very grateful for the support of ICD Section VIII for its generous donation to the New Zealand Dental Association Research Foundation. In 2022, Section VIII bequeathed $5000, and in 2023, $7,500. These research donations were awarded after review of grant applications by the NZDA Research Foundation Board.

In 2022, Dr May Lei Mei and her research team, Dr Kai Chun Li, Assoc. Prof. Manikandan Ekambaram, and PhD Candidate Ms Yipeng Fu; were awarded $5,000 to support their project: “Remineralisation of early enamel caries with adjunctive application of a bioinspired peptide and fluoride varnish: an in vitro study.” This project aims to investigate the mineralisation effect of adjunctive use of a bioinspired peptide containing core components of amelogenin, named P26, with topical fluoride varnish on early enamel tooth decay. The researchers are investigating structural changes on the surface and within the body of regenerated enamel tooth decay, to describe the benefits of this treatment. It is hoped that this research will lead to deployment of a product that will enhance remineralisation, reduce cavitation, thus provide another means for dentists to improve oral health outcomes for their patients.

In 2023, Professor Mauro Farella and researchers, Dr Fiona Firth, and DClinDent candidate Daniel Waller, were awarded $7,500 to support their project: “Sleep and awake bruxism: Are they associated?” This research is investigating masticatory muscle activity (MMA) in patients with a diagnosis of probable sleep and awake bruxism. The team are also hoping to describe the relationship between MMA and the presence and the severity of tooth wear. Surface electromyography (EMG) is a method of detecting muscle activity through can be worn both for activities of daily living and during sleep. The researchers believe this technology has never been used to compare jaw muscle activity during the day and during sleep. They hope the results of their investigation will add to the knowledge base and understanding of bruxism, and also help develop diagnostic tools and improved treatments for bruxism.