

Anil Kishen, BDS, MDS, PhD
 Saturday, February 1, 2025
 2 CE units

Subject Area Endodontics

Title: — v P] v CE E v } % CE š] o • W W CE] P u ^ Z] (š] v š Z d CE š u v š } (

Course Description:

Therapeutic options to eliminate root canal biofilm have been the primary focus for innovations in recent years. In spite of some significant technological advances in the past two decades, the root canal environment remains a challenging niche in which to eliminate surface-adherent bacterial biofilms predictably. Additionally, there has been a growing interest in dentin preservation to maintain the mechanical integrity of endodontically treated teeth. However, the question remains: Can the current strategy of utilizing minimally invasive endodontic cavity, root canal preparation and sealed obturation improve the mechanical integrity of root-filled teeth while maintaining the efficacy of root canal disinfection? This lecture will review the challenges associated with conventional disinfection strategies and introduce a newly developed multimodal therapy based on engineered bioactive biomaterials to treat apical periodontitis.

Objectives:

- 1) At conclusion, participants should be able to understand the microbiological and mechanical challenges in the treatment of teeth with apical periodontitis.
- 2) At conclusion, participants should be able to understand the conventional applications of nanoparticles in endodontic treatment.
- 3) At conclusion, participants should be able to understand the mechanisms by which engineered bioactive nanoparticles improve mechanical integrity of root-filled teeth, enhance root canal disinfection as well as modulate periapical wound healing.

Short Bio:

Dr. Anil Kishen is an Associate Dean for Graduate Education at the University of Toronto's Faculty of Dentistry. He is also a Professor and Canada Research Chair (Tier 1) in Oral Health Nanomedicine as well as Dr. Lloyd and Mrs. Kay Chapman Chair in Clinic

(ACFD) for excellence in Dental Education. While his primary research contributions have been recognized with the 2021 Louis I. Grossman Award from the American Association of Endodontics and the 2023 National Dental Research Award from the Canadian Association for Dental Research (CADR) and ACFD for exceptional contributions to dental research in a Canadian University.

• developments in bioactive nano biomaterials and phototherapeutic to fight oral infections and improve outcomes for patients. He is a co-inventor in 12 patents and has