Personal Statement

I've always believed that we, as humans, have an innate urge to help others. Having grown up around doctors, my love has developed into a duty that I'm starting to grasp through the courses I've chosen and extracurricular activities I've taken. Dentists today perform more than just tooth drilling and filling; they also diagnose, treat, and prevent illnesses and diseases of the mouth that affect the teeth and the tissues surrounding them. Over the years, my self-motivated nature has helped me take various initiatives which have shaped me into the person I am today. Displaying a commitment to learning, taking on demanding roles and responsibilities, respecting the values needed to succeed, and working hard to foster them are a few of the capabilities that I believe are worthy of being selected for graduate studies and I feel proud to possess all of them. My desire is to improve oral health and prevent oral disease, contribute to the advancement of the field of dentistry, and develop new technologies and treatments that can improve the quality of life for patients. Thus, pursuing a research program in dentistry can be a challenging but rewarding experience that can help me grow both personally and professionally.

I believe that pursuing a research program will cater to my passion for developing new technologies and treatments. Additionally, the Faculty of Dentistry at the University of Toronto boasts world-renowned, vibrant faculties committed to research as well as a state-of-the-art research facility. As part of your ongoing research on root canal irrigation and intracanal medicines, I am also thrilled and pleased to provide my findings. I would have the option to apply these meds in other dental/endodontic therapies using research data from my study that other researchers might use, as well. The faculty of dentistry is the perfect place to do that because it is typically staffed by experts in the field of dentistry, who can provide students with a high-quality education and training in the latest techniques and technologies. The crucial factor that led me to apply here is the strong research programs and the opportunity to participate in ongoing dental

research projects. Moreover, the faculty of dentistry is a great place to build a professional network and make connections with other dental professionals.

I would like to take this opportunity to give you a backdrop about my research activity during the Ph.D. program. It was a clinically controlled single blinded prospective study to evaluate the potential of four homeopathic medicaments namely Calendula Officinalis, Arnica Montana, Echinacea Angustifolia, and Hypericum perforatum as root canal irrigants and intra-canal medicaments in chronic apical periodontitis. The study was conducted in three stages. I have published three articles related to my research in peer-reviewed pub-med/scopes-indexed journals.

Stage 1: To evaluate the in vitro anti-microbial potential of these medicaments against six bacterial strains namely P.gingivalis, P.intermedia, S. mutans, E faecalis, and A.Actinomycetemcomitens. L. acidophilus.

Stage 2: To evaluate the in vitro anti-inflammatory potential of these medicaments by gelatin zymography.

Stage 3: To evaluate the in vivo effectiveness of these medicaments as root canal irrigants and intracanal medicaments and to evaluate their anti-inflammatory potential after irrigation and after intracanal medication using Visual Analogue Scale.

The results obtained were positive and all the medicaments showed good potential as root canal irrigants and intracanal medicaments.
I also take this opportunity to discuss further research possibilities, which I would like to undertake with regard to my previous research as follows:

1. To focus research on the use of these medications in acute and mixed endodontics infections.
2. The potential use of these medications in endodontics biofilms would be a great challenge.
3. Use of these medications on Enterococcus faecalis the organism involved in reinfection of root canal treated tooth.

4. Use of these medications in wound healing

For anti-inflammatory potential

1. Post-endodontic pain and inflammation can occur due to accidental over-instrumentation and the use of these medicaments in the reduction or elimination of post-endodontic pain.
2. To compare the effects of over-irrigation on the periapical tissues using sodium hypochlorite and medications Calendula officinalis and Arnica Montana.

I hereby wish to pursue and continue my research in the above-mentioned areas as this would provide a good perspective and alternatives for use of irrigating solutions in endodontic treatment modalities.

Being a passionate researcher, I wish to progress my career in research and analysis work for the dental healthcare industry globally. Engaging in research work at the Faculty of Dentistry of the University of Toronto will provide me with an exceptional opportunity to build a professional network and make connections with other dental professionals. My ultimate career goal is to innovate efficient techniques and tools for diagnosis, treatment, and preventive care in oral health which will be possible through the guidance and support of highly professional mentors and doctors at this university.

I believe I have aptly expressed my interest in the field of study, and I hope that the admissions committee recognizes the same. I now thank the admissions committee for giving me a chance to submit my statement and hope for a positive response.