

Silvio Lottanti

Wladimir Adlivankine Prize winner 2013



Silvio Lottanti was born in 1977 in Wettingen, Switzerland. He graduated from the University of Zürich School of Dental Medicine in 2008. Subsequently, he worked in the Clinic of Masticatory Disorders, Removable Prosthodontics, Geriatric and Special Care Dentistry, Zurich, Switzerland. In 2009, he received his doctoral degree in dentistry (Dr. med. dent.). Since 2010 he has been employed at the Clinic of Preventive Dentistry, Periodontology and Cariology, Centre of Dental Medicine, University of Zürich, and since 2012 he is a resident on the endodontic programme at that clinic under the guidance of Dr. Matthias Zehnder.

In the research project “Intracanal temperature and real-time shrinkage of thermoplasticized gutta-percha” Dr. Lottanti compared the temperature of extruded gutta-percha from 3 endodontic heat guns. Based on an average temperature of extruded gutta-percha of 75°C, the shrinking kinetics of 3 commercially available gutta-percha brands upon cooling were determined. Linear shrinkage was measured using a custom-made table-top device at an ambient (endpoint) temperature of 37°C. It was possible to demonstrate that extrusion temperatures differed greatly between heat guns of different brands. Furthermore, shrinking kinetics differed significantly between the gutta-percha brands under investigation. Shrinkage continued after body temperature was reached.

