Presentation 1: Chemical preparation of the root canal system prior to root filling
The emphasis of chemomechanical root canal preparation has traditionally been on reducing the microbial load in the root canal system. This goal is still key. On the other hand, little thought has gone into conditioning the root canal wall for the subsequent filling procedure. In this lecture, the chemistry and mode of action of our main irrigant, NaOCl, will be discussed. Based on this, additional chemicals and the sequence of their application will be considered.

Presentation 2: Root canal medicaments: paradigm shifts
Recent research has shown that antimicrobial root canal medicaments are not necessary. However, “not necessary” does not mean not useful. This presentation will focus on paradigm shifts in root canal medication aimed at reducing the microbial load in the canal system. These shifts are: 1) from intervisit to intravisit disinfection; 2) from inert to smart root filling materials; and 3) from sealer to biological interface.

Presentation 3: Endodontic retreatment or implant
It should be clear to any dentist that implants should not replace teeth, just missing teeth. This would be the end of the discussion on whether to do a primary endodontic treatment or replace the tooth by an implant. However, if a tooth in question already has a failed root canal treatment, things become more complicated. This talk will focus on treatment decisions in this context.
Biography

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Matthias Zehnder was born 1969 in St. Gall, Switzerland. He graduated from University of Bern School of Dental Medicine in 1994, where he received his doctoral degree in dentistry (Dr. med. dent.) in 1996. Subsequently, he worked in private practice and part-time as a postdoctoral research fellow at the Department of Oral Cell Biology, University of Bern School of Dental Medicine. Between 1998 and 1999, he was employed at the Department of Oral Biology and Periodontology, Boston University Goldman School of Dental Medicine. He then took a specialist training in Endodontology at Columbia University, from which he graduated in 2001. In addition, Matt has completed a PhD at Turku University in June 2005 and has received a Docent title from the University of Zürich in June 2007. Currently, he is the head of the Division of Endodontology at the Clinic of Preventive Dentistry, Periodontology, and Cariology, University of Zürich. Matt Zehnder’s main research interests are in diagnosing pulpal disease using molecular markers, and in developing improved methods to treat infected dental hard tissues. He is associate editor of the International Endodontic Journal and on the editorial board of some other dental journals.