



## | editorial

### 03 Dear Reader

| Dr Carsten Appel, Guest Editor

## | clinical report

### 06 The X-Files: four case reports

| Dr L. Stephen Buchanan

### 12 Endodontically speaking, the proof is in the pudding

| Dr Barry Musikant

### 18 Apical microsurgery—Part III

| Dr John J. Stropko

### 22 The future of endodontics: pulp revascularisation

| Dr Philippe Sleiman

## | trends

### 24 Practical clinical considerations in endodontic re-treatment

| Dr Richard E. Mounce & Dr Gary D. Glassman

## | research

### 30 Determining working length, or how to locate the apical terminus

| Prof Vladimir Ivanovic & Dr Katarina Beljic-Ivanovic

Cover image courtesy of alphaspirit.

## | industry report

### 38 The DownPak Device:

obturation with heat and vibration

| Dr Stephen Cohen et al.

## | lifestyle

### 42 Enjoy your trip and indulge in the journey!

| Annemarie Fischer

## | meetings

### 46 ESE holds another record meeting in Scotland

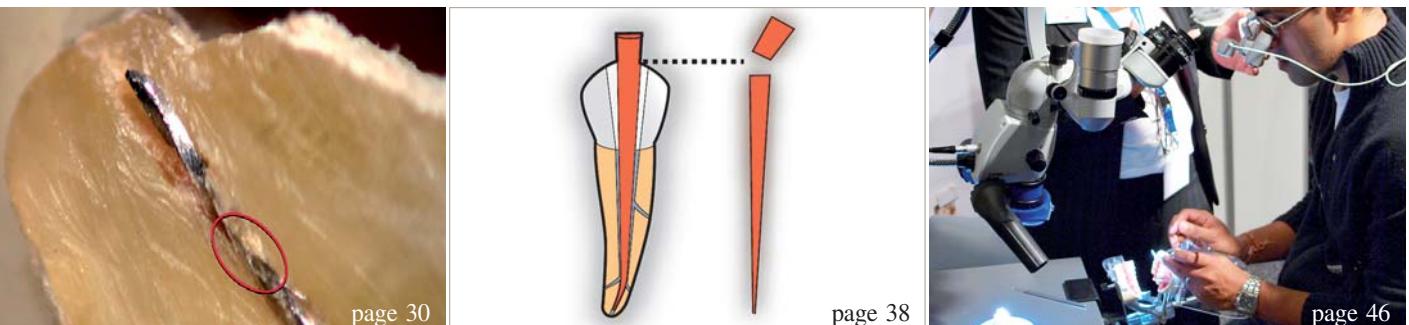
| Daniel Zimmermann

### 48 Endo events

## | about the publisher

### 49 | submissions

### 50 | imprint

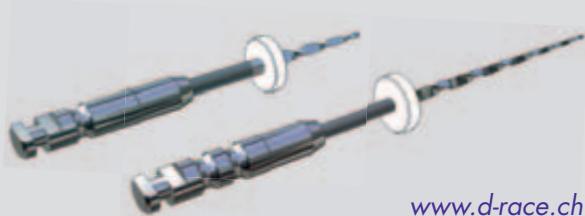


# TOOLS TO KEEP SMILING

No less than ...  
...4 launches !

## D-RaCe

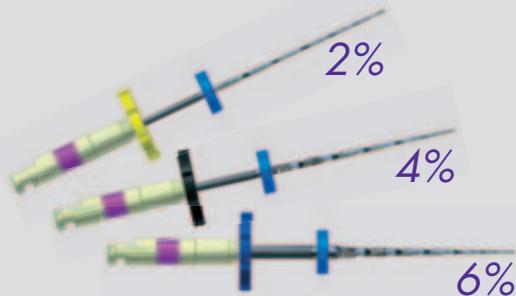
*Desobturation made easy*



[www.d-race.ch](http://www.d-race.ch)

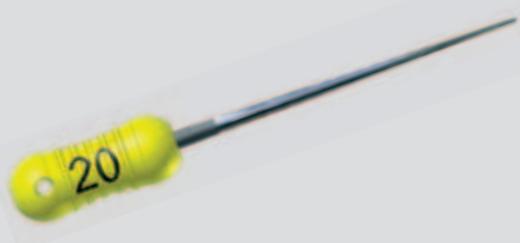
## FKG RaCe ISO 10

*Mechanical Glide Path*



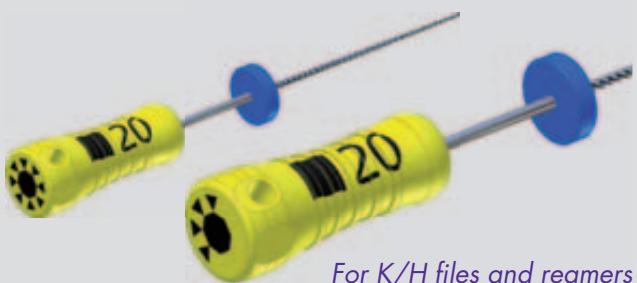
## Spreader 4%

*NiT & Electro-chemical polishing*



## SMG handle

*Indicator of uses*



*For K/H files and reamers*

  
**FKG DENTAIRE**  
Swiss Dental Products



[www.fkg.ch](http://www.fkg.ch)