issn 2193-4673 • Vol. 18 • Issue 1/2022

1/22

roots

international magazine of endodontics

including

ROOTS
SUMMIT

special

interview

ROOTS SUMMIT "is not to be missed"

case report

Automatic assistance: Freedom to navigate root canals

technique

High-end technology for simplicity





SWEEPS® Photoacoustic Endodontics

Looking for a more effective endodontic treatment?

- Shock Wave Enhanced Emission Photoacoustic Streaming
- Improved debridement and disinfection
- Minimally invasive
- Faster, safer and more effective
- More patient friendly

Visit www.fotona.com to find out more!



Available with LightWalker® and SkyPulse®



Steve Jones

Co-chairman ROOTS SUMMIT

ROOTS SUMMIT 2020 2021 2022!

"Third time's the charm" is our rallying cry as we close in on this year's ROOTS SUMMIT. When the world entered a pandemic two months before the originally scheduled dates, we thought we would reschedule the event for a couple of months later. Who knew it would be a couple of years?

After this extremely stressful, upsetting and isolating time for all, many of our participants are suddenly affected by war on their border. Let's hope that the madness of this war in Ukraine will soon end. During this heartless and brutal time, it is more important than ever that we get together as friends, learning and improving our skills together.

The ROOTS Facebook group of around 30,000 members and ROOTS SUMMIT represent the camaraderie, fellowship and mutual interest endodontists around the world share. We do it every day online, but the strength of our online community over the last 20 or so years has been greatly enhanced by meeting on a semi-annual basis. Those who were in Berlin in Germany in 2018 had the experience of sharing their passion and profession with friends from around the planet, and many signed up immediately for the next ROOTS SUMMIT. At last count, we had people coming to join us from over 30 countries.

To appreciate the global appeal of ROOTS SUMMIT, you need look no further than our speakers list, which includes dentists from the Czech Republic, Egypt, France, Guatemala, India, Israel, Italy, Lebanon, Portugal, Romania, Spain, Switzerland, Syria and the US.

We are extremely appreciative of the fact that all our lecturers have stuck with us, as have the 40 sponsoring companies and a couple of hundred participants. The sponsors should be especially thanked, as they come to ROOTS SUMMIT because that is where research findings are translated into clinical practice better than any other meeting. They do not come to ROOTS SUMMIT because they have purchased a spot on the podium. They come because of the quality of the speakers and the enthusiasm and passion the participants have for endodontics! We all thank them for this open and ethical approach.

We are accepting registrations up to and including 26–29 May, and we hope that you will consider joining us in the beautiful city of Prague in the Czech Republic for the best and most inclusive meeting in endodontics.

Steve Jones Co-chairman of ROOTS SUMMIT







Cover image courtesy of FKG (www.fkg.ch).



editorial

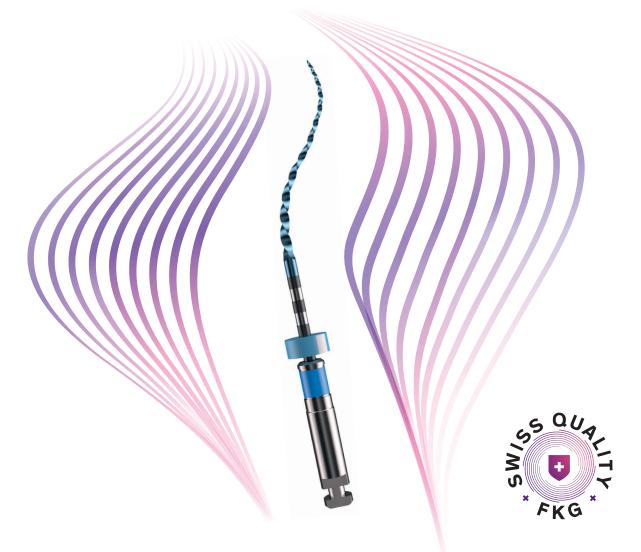
international imprint

ROOTS SUMMIT 2020 2021 2022! Steve Jones	03
ROOTS SUMMIT special	
ROOTS SUMMIT "is not to be missed" An interview with Dr Gianluca Plotino	06
ROOTS SUMMIT 2022— "I can't wait to experience the best endo meeting again" An interview with Dr Jenner Argueta	07
ROOTS SUMMIT means "practical lectures, enough time for the topics, no need to skip anything" An interview with Dr Daniel Černý	08
Lecture programme, abstracts and speaker information	10
case report	
Automatic assistance: Freedom to navigate root canals Prof. Eugenio Pedullà	20
Digital technology in endodontics Dr Bartlomiej Karaś	24
Root canal therapy of necrotic primary molars—using a single-file reciprocating system Drs Benjamín Rodríguez & Jenner Argueta	30
technique	
High-end technology for simplicity Adj Prof. Philippe Sleiman	36
The golden era of root canal shaping Dr Ahmed Shawky	38
interview	
Laser protocol for peri-implantitis treatment An interview with Dr Michał Nawrocki	42
"The correct choice of an animal model is vital" An interview with Dr Alexis Gaudin	46
research	
The key role of vitamin D in immune health and regeneration Prof. Shahram Ghanaati, Dr Karl Ulrich Volz & Dr Sarah Al-Maawi	48
manufacturer news	54
meetings	
International events	56
about the publisher	
submission guidelines	57

58



R-Motion®



RECIPROCATION

THE SAFEST. SIMPLY.

Smooth to use, minimally invasive. Why choose anything else?

Come to visit us at our booth FW09



ROOTS SUMMIT "is not to be missed"

An interview with Dr Gianluca Plotino

By Franziska Beier, Dental Tribune International



ROOTS SUMMIT, one of the most exciting endodontic events of this year, will kick off in May in Prague in the Czech Republic. One of the speakers will be Dr Gianluca Plotino, who will contribute to the rich programme with a hands-on course and a lecture. In this interview, Dr Plotino, who maintains a private practice specialising in endodontics and restorative dentistry in Rome in Italy, gives a preview of his congress topics and explains why endodontists should attend the event.

Dr Plotino, you will be very busy at this year's ROOTS SUMMIT, as you will present two different topics. What do you find most rewarding about teaching?

I love it when people thank me and tell me that my suggestions, tips and tricks have changed their professional lives! That is a priceless experience!

For your hands-on course, which will focus on how to use different files for root canal anatomy, you encourage participants to bring well-preserved extracted teeth to practise on. What instruments and clinical techniques will participants get to know during your workshop?

During my workshop, the clinical procedures for treating root canals having various difficulties will be explained and demonstrated on resin teeth in order to show the standard clinical techniques and the use of various instruments. I encourage all participants to bring natural teeth because trying the instruments on extracted teeth that have open access cavities will give them a better overview of the performance of the tools. I will show them how to integrate the reciprocating instruments R-PILOT (VDW) and RECIPROC blue (VDW) and the VDW.ROTATE rotary files into their practices.

Could you briefly summarise your lecture on minimally invasive approaches in endodontic procedures and tell us what the take-home message for attendees will be?

Following the trend of minimally invasive dentistry, the concept of minimally invasive endodontics emerged. However, I prefer to call it anatomically invasive endodontics as all endodontic procedures must be guided by the original root canal anatomy. In my lecture, I will describe how to find a good balance between maximising the preservation of the tooth structure and keeping endodontic procedures safe and efficient.

What are you personally looking forward to at the upcoming ROOTS SUMMIT?

All lectures given by my colleagues and friends deserve to be followed with the utmost attention, and I will be there to learn. In addition, I will be happy to see so many friends in person after such a long time!

Can you name three reasons why everyone interested and involved in endodontics should come to the event?

It's one of the most important endodontic events of the year, one of the first to take place as an in-person event after a long time, and it has a great scientific, cultural and social offering. It is not to be missed!

ROOTS SUMMIT 2022— "I can't wait to experience the best endo meeting again" An interview with Dr Jenner Argueta

By Franziska Beier, Dental Tribune International

Dr Jenner Argueta from Guatemala is a speaker at ROOTS SUMMIT, which is hold from 26 to 29 May in Prague in the Czech Republic. During his hands-on course, the expert, who runs a practice that focuses on micro-endodontics and micro-restorative dentistry, will show attendees how to handle complex clinical scenarios with the help of 3D magnification. Prior to the event, Dr Argueta shared how this technology can benefit dental professionals and what he is most looking forward to at the event.

Dr Argueta, what skills will participants learn in your hands-on course and how are these going to benefit them in treating patients?

As clinicians, we face complex clinical scenarios in everyday practice, such as root canals with ledges, radicular resorptions, perforations and areas having difficult access during surgery. The objective of my workshop is to show attendees how to handle this type of situation in the most comfortable and predictable manner by using novel materials, state-of-the-art equipment and 3D magnification.

During your hands-on course participants will experience how to work with 3D magnification. What are some of the advantages for dental professionals of using such technology?

Having the possibility of moving the optical pod of the 3D microscope to any angle in order to focus on any area of the oral cavity while maintaining the correct ergonomic posture is a priceless advantage of 3D microscopic technology. This advantage is enhanced by high-definition 3D imaging with outstanding depth of field, which is transmitted to a monitor that is perfectly positioned in front of the clinician. These advantages make the clinical workflow easier, more predictable and more enjoyable.

Is your course open to experienced endodontists as well as to dental students?

Certainly! The goal is to show simplified techniques for solving complex clinical situations, and these simplified techniques will be applicable for both dental students



and trained endodontists. However, experienced endodontists will experience at first hand how 3D technology can contribute to their clinical practice.

You have attended previous editions of the endodontic meeting. Looking back now, how would you sum up these events and how excited are you that you will be back at ROOTS SUMMIT in Prague soon?

I attended ROOTS SUMMIT 2016 in Dubai in the UAE and ROOTS SUMMIT 2018 in Berlin in Germany. Both were high quality events in terms of organisation, science, lectures, camaraderie and friendship. I can't wait to experience the best endo meeting again. It is time to get the ROOTS family reunited in Prague!

ROOTS SUMMIT means "practical lectures, enough time for the topics, no need to skip anything" An interview with Dr Daniel Černý

By Franziska Beier, Dental Tribune International



Dr Daniel Černý, who has been the president of the Czech Endodontic Society since 2015, is one of many renowned and enthusiastic speakers at this year's ROOTS SUMMIT. Ahead of the event, Dental Tribune International spoke with Dr Černý about what visitors can expect from the city of Prague and from his lecture topic and asked him how he applies the things he has learned at ROOTS SUMMIT in his daily practice.

Dr Černý, this year's ROOTS SUMMIT will take place in your home country. Can you tell us a bit about the event venue and also about Prague itself? What are three city highlights which international participants should not miss?

I am excited about ROOTS SUMMIT coming to Prague. There are those highlights you can find in every guide, such as Charles Bridge, the astronomical clock in Old Town Square or Prague Castle, and they are certainly worth a visit.

But if you want to delve a little deeper, I recommend visiting Prague Botanical Gardens on an early morning in May. From there, you can climb up to the historic Vyšehrad Fortress to sense a bit of early Prague history and enjoy the great views. Afterwards you can casually stroll through the winding streets of the Praha 1 district with its small shops, restaurants and cultural institutions.

The congress venue is quite new and technologically advanced, and I believe the ROOTS community will enjoy it as much as I did last year when the annual meeting of the Czech Endodontic Society was held there.

Together with Dr Radek Mounajjed, you will hold a lecture on the advanced adhesive endodontic/restorative concept. What can attendees expect to take away from it?

The concept is something we have been developing and practising for the last 16 years. Its main message is that you can restore endodontically treated teeth with a high degree of predictability. It may not be simple or foolproof but following the correct steps will take you safely to the desired result while maintaining teeth with large structural damage. In this concept, we combine knowledge from modern biology of endodontics, adhesion to hard tissue, material science, biomechanics and occlusion. We want to present the key ideas that define this approach: reasonable structural savings, replacing the structure with similar material, adhesion and the fail-safe principle.

What are some of the highlights of this year's ROOTS SUMMIT that you are personally looking forward to?

I can imagine that the social events in Prague might be quite epic. The scientific programme of the congress is classic ROOTS SUMMIT: practical lectures, enough time for the topics, no need to skip anything. I am interested in Dr Catherine Ricci's lecture on large lesions and Dr Hugo Sousa Dias's lecture on the management of pulp canal obliteration. I also want to learn more on bioceramics from Dr Meetu Ralli Kohli and, of course, it is always nice to hear new thoughts from Dr Stephen Buchanan.

How do you translate the things that you pick up at ROOTS Summit into your daily practice?

Relatively easily. It is not that difficult since we all share similar ideas, and my knowledge gain is often in the clinical applications and from the tips on how to integrate new ideas into the current knowledge. If I don't apply what I have learned directly, then at least I have understood it and can subconsciously integrate it into my approach. And for this reason, I think meetings like ROOTS SUMMIT are better than hasty depersonalised scientific meetings or just reading. We are social beings; we like to see and hear one another.

This will be your second time at ROOTS SUMMIT. What would you like to tell all the endodontists around the world who have not booked their ticket yet? Why should they attend this year's edition?

I would give them three different reasons for booking their ticket. Firstly, because of the ROOTS SUMMIT programme and clinical approach as I described earlier. Secondly, because of the city of Prague in spring—beautiful, blossoming, welcoming and friendly. And finally, because of the opportunity to meet old friends after having been locked up for two years!

With four years since the last event in Berlin, this has been the longest break in ROOTS SUMMIT history. I think we should all make the most of it right now. *Carpe diem!*

ΑD

ALPHA II & BETA

Root Canal Obturation System



Snip the GP Cone at the Exact Diameter!

