2. Internationaler Kongress
"Schnittstelle Endodontie"

2nd International Congress
"Crossroads Endodontics"

November 9 - 10, 2012
Österreichische Akademie der Wissenschaften
Vienna, Austria

www.oegendo.at
Professionelle Aufbereitung –
so einfach wie noch nie!

- Weniger Arbeitsschritte (konische Greater-Taper-Aufbereitung mit nur einem Instrument)
- Sichere Anwendung (selbst stark gekrümme und enge Kanäle können einfach aufbereitet werden)
- Bequeme Einmalverwendung (kein Reinigen, kein Sterilisieren)

Weitere Informationen zu unserem RECIPROC® System unter
www.RECIPROC.com

VDW GmbH
Postfach 830954 • 81709 München
Tel. +49 89 62734-0 • Fax +49 89 62734-304
www.vdw-dental.com • info@vdw-dental.com
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome Address</td>
<td>3</td>
</tr>
<tr>
<td>Committees &amp; Organisation</td>
<td>4</td>
</tr>
<tr>
<td>General Information</td>
<td>5</td>
</tr>
<tr>
<td>Scientific Programme</td>
<td></td>
</tr>
<tr>
<td>Friday, November 9, 2012</td>
<td>7</td>
</tr>
<tr>
<td>Saturday, November 10, 2012</td>
<td>13</td>
</tr>
<tr>
<td>Workshop</td>
<td>16</td>
</tr>
<tr>
<td>Speakers</td>
<td>17</td>
</tr>
<tr>
<td>Vorwort</td>
<td>23</td>
</tr>
<tr>
<td>Komitees &amp; Organisation</td>
<td>24</td>
</tr>
<tr>
<td>Allgemeine Informationen</td>
<td>25</td>
</tr>
<tr>
<td>Wissenschaftliches Programm</td>
<td></td>
</tr>
<tr>
<td>Freitag, 9. November 2012</td>
<td>27</td>
</tr>
<tr>
<td>Samstag, 10. November 2012</td>
<td>33</td>
</tr>
<tr>
<td>Workshop</td>
<td>35</td>
</tr>
</tbody>
</table>
WITH THE KIND SUPPORT OF

- Carestream Dental
- Coltene
- Dentsply Maillefer
- FKG Dentaire
- American Dental Systems
- i-dent
- Komet
- Austria Pluradent
- VDW
- Zeiss

For better dentistry
Dear colleagues!

It is my great pleasure to invite you to our biennial International Congress of the Austrian Society of Endodontology. It will once again take place at the Austrian Academy of Sciences in Vienna.

At the successful annual meeting in Salzburg last October, we presented and discussed the latest endodontic treatment techniques with immediate relevance for daily practice. This year we have prepared a scientific programme which examines scientific highlights common with other medical disciplines. As such, one presentation is dedicated to the digital volume tomography, a very exciting topic rarely integrated in today’s routine practice, though it will certainly achieve great importance in the near future.

Furthermore, we will welcome Prof. Pierre Machtou from Paris and Prof. Martin Trope from Philadelphia as our main speakers. They are both unquestionably a highlight at any international endodontic event.

To make our conference even more attractive, we have organised a simultaneous translation from English to German and for our foreign colleagues from German to English.

Last but not least, in addition to the high scientific quality of the conference, we have organized a great evening event in one of Vienna’s hot spots – the “Motto am Fluss”.

I hope I have piqued your interest and I am looking forward to welcoming you to an extraordinary scientific and social program in Vienna.

Dr. Karl Schwaninger
Congress President
Committees & Organisation

Congress President
Dr. Karl Schwaninger

Congress Secretaries
Dr. Johann Reichsthaler
DDr. Johannes Klimscha

Scientific Committee
Univ.-Prof. DDr. Andreas Moritz (Wien)
Ass.-Prof. Univ.-Doz. Dipl.-Ing. Dr. Reinhard Gruber (Wien)
Prof. Dr. Kurt Ebeleseder (Graz)

Congress Office
Vienna Medical Academy
Alser Strasse 4
1090 Vienna, Austria
T +43 1 405 13 8311
F +43 1 407 82 74
E oegendo2012@medacad.org
www.medacad.org

Hotel accommodation and travel arrangements
Mondial Hotelreservierung
Lisa Helbok
Tel: +43 1 588 04 164
helbok@mondial.at

Congress Venue
Österreichische Akademie der Wissenschaften (ÖAW)
Dr. Ignaz Seipel-Platz 2, 1010 Wien
www.oeaw.ac.at

The registration desk is open:
Friday, November 9, 2012  08:00 – 18:00 hrs
Saturday, November 10, 2012  08:30 – 17:30 hrs
Registration Fees in EUR

<table>
<thead>
<tr>
<th>Category</th>
<th>Payment until October 19, 2012</th>
<th>Payment after October 19, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of ÖGEndo</td>
<td>290.-</td>
<td>340.-</td>
</tr>
<tr>
<td>Non-Members of ÖGEndo</td>
<td>450.-</td>
<td>500.-</td>
</tr>
<tr>
<td>University Assistants</td>
<td>190.-</td>
<td>240.-</td>
</tr>
<tr>
<td>Students</td>
<td>75.-</td>
<td>125.-</td>
</tr>
</tbody>
</table>

Registration is possible online via [www.oegendo.at](http://www.oegendo.at)
Pre-registration is possible till November 2, 2012.

Cancellations and payments modalities
Notice of cancellation must be made in writing by registered letter or fax to the Congress Office. Registration fees may be refunded as follows: cancellations made before October 15, 2012: 50% refund, after October 15, 2012: no refund
Refunds will be made after the congress. Pre-registration is possible till November 2, 2012. If you have registered and paid after this date, please provide a valid bank statement proving your payment at the registration desk.

ÖGEndo-Clubbing at "Motto am Fluss"
Price per person (incl. drinks and Buffet): **EUR 60.-**
Friday, November 9, 2012, 19.30 hrs
Address: Franz Josefs Kai/Vorkai, 1010 Wien
between Marienbrücke and Schwedenbrücke
Continuing education credits

The congress has been accredited by the Austrian Dental Chamber (Österreichische Zahnärztekammer) with 19 points.

Information for speakers

Talk

Please prepare your talk on USB or CD/ROM. Please make sure to hand your presentation to the technician in the lecture hall at the latest 2 hours before your talk is scheduled. The lecture hall is be exclusively equipped with WINDOWS PCs. If you wish to use your own Laptop for the presentation, please coordinate with the technician before your talk.

Speaking time

Please find the exact speaking time in the scientific programme. Young Scientists who have send in an abstract have 10 minutes presentation time.

Information for Posterpresenters

Mounting / dismounting

Poster mounting will be possible from Friday, November 9, 2012 at 08:30 hrs. The Posters must be removed at the latest by Saturday, November 10, 2012 at 16:30 hrs. Please note that posters not removed until then will be taken down by the staff of the conference organiser and will not be stored or send to the authors after the meeting. Material for mounting the posters will be available at the congress venue.

Poster viewing

Will take place on Friday, November 9, 2012 after the Young Scientist presentations.

Poster format

The usable surface on the poster board will be 90 cm width x 130 cm height (approx. 35 x 51 inches). Only pins can be used to mount posters. Material will be made available.

Awards

During the 2nd International Congress of the Austrian Endodontic Society “Crossroads Endodontics”, selected abstracts from “Young Scientists” will be held as short presentations of 10 minutes each. Presenting authors form the selected “Young Scientists” abstracts will be given free entry to the congress. The best presentations and posters will receive an award by the Scientific Committee.
Functionalizing biomaterials with prolyl hydroxylase inhibitors
H. Agis1, H. Müller1, L. Huber1, B. Cvikl (2) G. Watzek1, R. Gruber1,3
1Department of Oral Surgery, Medical University of Vienna and Austrian Cluster for Tissue Regeneration; 2Unit-Division of Dental Student Training and Patient Care, Medical University of Vienna; 3Laboratory of Oral Cell Biology, School of Dental Medicine, University of Bern, Switzerland

Introduction: In dentistry, hard and soft tissue regeneration is supported by biomaterials such as capping materials, bone substitutes, and barrier membranes. Successful regeneration, however, depends on the ability of the tissue to heal. If healing is compromised, strategies that support the healing process are required. Recently, targeting the oxygen sensors by prolyl hydroxylase (PHD) inhibitors has been shown to enhance hard and soft tissue healing, likely by stimulation of angiogenesis. These PHD inhibitors stabilize the transcription factor hypoxia inducible factor-1alpha and induce the production of vascular endothelial growth factor (VEGF). Here we asked the question whether clinically used biomaterials can be utilized as carriers for PHD inhibitors in dentistry.

Material and methods: Calcium hydroxide, inorganic bone mineral, tricalcium phosphate, hydroxylapatite, and collagen barrier membranes were loaded with the PHD inhibitors dimethylloxaloylglycine, desferrioxamine, L-mimosine and cobalt chloride. To assess the release kinetic of the PHD inhibitors bioassays with fibroblast derived from the dental pulp, the periodontal ligament and the gingiva performed. We assessed the impact of supernatants from the biomaterial on viability, proliferation, and protein synthesis with the MTT, 3[H]thymidine and 3[H]leucine incorporation assays. The effect on the pro-angiogenic capacity was measured by immunoassays for VEGF.

Results: Our data show that supernatants from inorganic bone mineral, hydroxylapatite, tricalcium phosphate, and collagen barrier membranes, all loaded with PHD inhibitors, stimulate VEGF production of fibroblasts from pulp, gingiva, and periodontal ligament. However, supernatants from calcium hydroxide loaded with PHD inhibitors failed to increase VEGF in the in vitro model. No toxic effects were observed at concentrations that where sufficient to stimulate VEGF production.

Conclusion: Our results show that PHD inhibitors released from bone substitutes and collagen barrier membranes maintain their capacity to stimulate the production of VEGF in fibroblasts. The capping material calcium hydroxide is no suitable carrier under these conditions. Further studies are required to reveal if other capping materials can serve as suitable carriers for PHD inhibitors.
Using E glass fibers in obturation of root canal system
K. El Batouty
1Endodontic Department School of Dentistry Ain Shams University Cairo Egypt

Using E glass fibers, a light transmitting root canal filling material (GF) was manufactured as a prototype for research purpose. GF cones are of different ISO standardized sizes. The GF transmits light to the apical area of the canal allowing the future use of light cure self adhesive sealers and better polymerization of dual cure resin sealers. It was found that the GF seal the root canal efficiently. The ability of GF to reinforce weakened root canal treated tooth structure and its resistance to dislodgment were evaluated. Based on the results of these studies, it was concluded that GF provided tooth reinforcement equivalent to that of fiber reinforced posts and superior to metallic posts. Moreover, GF exhibited far better resistance to dislodgment than both posts. Based on this evidence, GF succeeded to act simultaneously as a root canal filling material and a post in maxillary central incisors. Another study was conducted to compare the bond strength to root canal dentin of GF and MetaSeal to other filling systems. GF showed the highest total bond strength mean value which was significant from other groups. Despite the obstacles, the bonding inside root canal is facing these days, the future lies in it. GF seems to be a promising system; however, further investigations were conducted to evaluate other parameters of this root canal filling material. These include cytotoxicity, ease of removal and degree of polymerization of resin sealers after light transmission. The results of all these researches will be presented in the lecture.

Comparative study of IL17 in normal & symptomatic dental pulps by immunohistochemistry technique
S. A. Mousavi1, M. Hoseinian2, V. Kargar3
1Post graduate student of Endodontics, Isfahan University of medical sciences; 2Endodontist; 3Student of dentistry

IL17 is a pro inflammatory cytokine which is Produced by from CD4+ Th17 cells and compensate defects of classic model of Th1/Th2. It has been stated that interleukin 17 increase in many autoimmune disease, skin and joint infection and dental periradicular lesions. It also has an axial role in initiation and propagation of immune response. One of its destructive functions is by acting on osteoclasts. The aim of this study is evaluation of IL17 tissue protein expression in normal and symptomatic dental pulps.

Material and methods: Healthy and irreversible dental pulp samples were obtained from 20 third molars and 20 premolar and molars with cariese that had including criteria for our study after processing dental pulp samples. The immunohistochemistry technique was applied. Distribution and staining intensity IL17 proteins were evaluated by SID score.
Results: Analyzing SID score with Mannwhitney test showed significant increase of IL17 (P = 0.002) in symptomatic dental pulp tissues (2.35±1.225) compared to healthy samples (1.15±0.933).
Conclusion: The results suggest that IL17 may serve as a pathologic marker of inflammatory action in irreversible pulpitis.

**Prolyl hydroxylase inhibitors increase the production of vascular endothelial growth factor in human dental pulp cells**

H. Müller1, B. Cvikl2, G. Watzek1, R. Gruber1,3, H. Agis1

1 Department of Oral Surgery, Medical University of Vienna and Austrian Cluster for Tissue Regeneration; 2 Unit-Division of Dental Student Training and Patient Care, Medical University of Vienna; 3 Laboratory of Oral Cell Biology, School of Dental Medicine, University of Bern, Switzerland

Introduction: The success of dental pulp capping depends on the ability of the pulp to heal. If healing is compromised, strategies that support the healing capacities are indicated. One key element of tissue regeneration is angiogenesis, which is governed by the labile transcription factor hypoxia inducible factor (HIF)-1alpha. Prolyl hydroxylase (PHD) inhibitors can stabilize HIF-1alpha and induce a pro-angiogenic response that stimulates soft and hard tissues regeneration. However, the effects of PHD inhibitors on the dental pulp are unclear. The purpose of this study was to evaluate the effects of PHD inhibitors on the pro-angiogenic capacity of human dental pulp cells.

Material and methods: To reveal the response of dental pulp cells to PHD inhibitors, dental pulp cells were exposed to dimethyloxaloylglycine, desferrioxamine, L-mimosine and cobalt chloride. Viability, proliferation and protein synthesis were assessed by the MTT, 3[H]thymidine and 3[H]leucine incorporation assays. The effects on the intracellular levels of HIF-1alpha and the pro-angiogenic capacity was measured by Western blotting for HIF-1alpha and immunoassays for vascular endothelial growth factor (VEGF), respectively.

Results: At millimolar concentrations we observed that PHD inhibitors can reduce viability, proliferation and protein synthesis. At lower, non-toxic concentrations dimethyloxaloylglycine, desferrioxamine, L-mimosine and cobalt chloride inhibitors increased the intracellular levels of HIF-1alpha and stimulated the production of VEGF in human dental pulp cells.

Conclusion: Our findings suggest that dental pulp cells respond to PHD inhibitors that stabilize HIF-1alpha and stimulate VEGF production. These findings provide the scientific rational to study the impact of PHD inhibitors on dental pulp healing in organ cultures and in preclinical models. Together this studies will reveal the therapeutic capacity of PHD inhibitors in the field of endodontics.
L-mimosine increases the production of vascular endothelial growth factor in human tooth slice organ culture model

K. Trimmel¹, H. Müller ¹, B. Cvikl ², R. Gruber ¹,³, G. Watzek¹, H. Agis¹
¹Department of Oral Surgery, Medical University of Vienna and Austrian Cluster for Tissue Regeneration; ² Unit-Division of Dental Student Training and Patient Care, Medical University of Vienna; ³Laboratory of Oral Cell Biology, School of Dental Medicine, University of Bern, Switzerland

Introduction: L-mimosine, a prolyl hydroxylase inhibitor, can induce a pro-angiogenic response in cells derived from the gingiva, the periodontal ligament, and the dental pulp, as shown recently by our group. The impact on the pulp-dentin complex is, however, unknown. Here, we assessed the effect of L-mimosine on the pro-angiogenic and pro-inflammatory capacity of human dental pulp explants.

Material & methods: To test for the response of dental pulp we utilized a tooth slice organ culture model. Teeth were sectioned transversely into 600 μm-thick slices and cultured in medium supplemented with fetal calf serum with antibiotics. The tooth slices were stimulated with L-mimosine. Culture supernatants were subjected to immunoassays for vascular endothelial growth factor (VEGF) and IL-6. Tooth slices were subjected to viability measurements by the MTT assay based on formazan formation.

Results: We found that L-mimosine stimulated VEGF production when normalized to formazan formation in the tooth slices. These findings are in line with our results from cultures of dental pulp derived cells. IL-6 was not significantly increased by L-mimosine when normalized to formazan formation in the pulp tissue. As positive control for a pro-inflammatory response tooth slices were stimulated with IL-1. We found that IL-1 increases IL-6 thereby confirming that the model is suitable to detect changes in IL-6 levels.

Conclusion: Together our results suggest that the prolyl hydroxylase inhibitors L-mimosine increases VEGF production in the tooth slice organ culture model while leaving the IL-6 production unchanged. Thereby the tooth slice organ culture model provides first insights into the impact of prolyl hydroxylase inhibitor on the pulp-dentin complex. Preclinical studies are required to reveal the impact on pulp regeneration.

Posterwalk
Friday, November 9, 2012

11:00 – 11:30 Coffeebreak

11:30 – 12:30 **Microbial biofilms in endodontic infections**
L. Chávez de Paz, Farmington (US)

Biofilms are multispecies communities of microorganisms that form in root canals and may spread to the adjacent periapical tissues during acute phases of infection. Biofilms associated to infected root canals will provoke persistent inflammatory reactions that will jeopardize the outcome of the root canal treatment. With the recent inclusion of biofilm biology as a main research subject in endodontontology, many aspects of the multicellular lifestyle of root canal biofilms can be revealed. For example, root canal biofilms acting as multicellular organisms will facilitate the interactions among its members to perform a wide range of cooperative actions, such as nutrient acquisition, colonization, cell-to-cell communication and resistance to antimicrobials. This presentation will focus on reviewing current and novel concepts of biofilm biology with emphasis in recent studies that approaches biofilms formed in root canals as complex multicellular organisms.

12:30 – 14:00 Lunch break

14:00 – 15:30 **Vital Pulp Therapy. What our knowledge from trauma teaches us in the treatment of the carious exposure.**
M. Trope, Philadelphia (US)

We have good knowledge about the requirements for success after trauma to vital teeth. In a carious exposure the conditions are much less predictable and therefore our treatment protocols and outcomes are similarly unsure. New knowledge and materials may allow us more predictability in vital pulp therapy in cariously exposed teeth.

In this talk I will review our knowledge on vital pulp therapy in traumatized teeth and relate this knowledge to the carious exposure.

I will propose a protocol for the treatment of carious exposures that expands vital pulp therapy in the endodontic treatment of vital teeth.

15:30 – 16:00 Coffeebreak
A dentist must have a solid biologic basis for all treatments that he/she performs. All new techniques or technologies must be assessed in the context of their ability to achieve the biologic objective to ensure maximal success. The biologic requirements for predictably successful endodontics will be presented. Essential concepts such as 1. Vital vs Necrotic teeth 2. Minimal Apical Sizes 3. Irrigation protocols 4. Bonded Root Filling Materials and 5. One Step Endodontics will be discussed.
While conventional imaging methods as panoramic radiography and dental film are very useful in evaluating jaw and teeth related anatomy as well as pathology, newer radiologic methods as cross-sectional imaging techniques, have continuously gained importance. More recently tooth related findings have been found to be accessible using MultiSlice and ConeBeam-CT. This presentation will focus on the technique and usefulness of cross-sectional imaging for treatment as well as anatomic conditions, variants and complications leading to success or failure. Furthermore the correct imaging technique and the most important error sources will be discussed.

As we know, the diagnosis and treatment plan in Endodontics depends to a great measure on the radiographs and the information obtained from its 2 dimensions. The recent and rapid addition of volumetric tomography or cone beam computed tomography (CBCT) in dentistry has allowed us to see the desired third dimension that was missing in periapical and panoramic radiographs. Now with a simple technique and a reasonable radiation exposure, not only can we see the missing plane that could have obtained with conventional radiographs, we can reconstruct digitally the volumetric image in high resolution so that we can study the depths of pathology and structures affecting Endodontics. This includes, amongst others, the study of the complex dental anatomy, the differential diagnosis of periapical lesions, traumatology and dento-alveolar fractures and resorptions.

Predictable endodontic requires the fulfilment of biological and technical objectives. Since it is well agreed that the technical quality of the root canal treatment has a direct relationship with the outcome, the clinical goal is to achieve a proper management of the root canal anatomy. In the last 15 years, new clinical concepts for cleaning and shaping the root canal have evolved along with technological advancements. Therefore, canal preparation has been made easier and faster whilst respecting both biological and mechanical objectives. Rotary NiTi instrumentation has made the cleaning and shaping of root canal systems faster, easier and predictable. However,
some clinicians are still reluctant to routinely use this technique for fear of meeting instrument fracture. The WaveOne™ concept is a new approach which implements an asymmetric reciprocating motion with a single instrument to completely shape the root canal. In this concept, a specially designed file works in a motorized balanced force action using a pre-programmed motor. Simplicity is the real innovation along with an improved safety, a reduced shaping time, cost saving and virtually no learning curve for the operator. Backed by scientific research and clinical cases, a detailed description of the WaveOne concept will be provided.

Following attendance at this lecture attendees can expect a deeper understanding of:
- The importance of access before mechanized canal instrumentation
- How to negotiate difficult canals
- The benefits of a secured glide path
- The cleaning and shaping sequence with WaveOne

12:30 – 13:30 Lunchbreak

13:30 – 14:30 Root Canal Preparation : Modern Techniques Part 2
P. Machtou, Paris (FR)

See abstract above (Part 1)

14:30 – 15:00 Coffeebreak

15:00 – 17:30 Restauration des avitalen Zahnes
G. Krastl, (CH)

Es gilt als gesichert, dass die Prognose wurzelkanalbehandelter Zähne nicht nur von den durchgeführten endodontischen Maßnahmen abhängt, sondern auch ganz entscheidend von der postendodontischen Restauration beeinflusst wird. Ihre primären Ziele sind eine dauerhaft bakteriendichte Versiegelung des Zugangs zum endodontischen System sowie die Wiederherstellung der Funktion und die Frakturprophylaxe. Nicht zuletzt durch die Adhäsivtechnik und deren Anwendung im Wurzelkanal sowie die Einführung neuer Materialien zur Wurzelstiftherstellung hat die restaurative Therapie wurzelkanalbehandelter Zähne grundlegende Änderungen erfahren. Ausgehend vom Zahntyp und vom koronalen Zerstörungsgrad werden Therapieoptionen für den Aufbau (mit und ohne intrakanaläre Stiftverankerung) und die weitere Versorgung endodontisch behandelter Zähne besprochen und exemplarisch belegt.
Weiterhin werden folgende Punkte diskutiert:
• Avitaler Zahn: was ist anders?
• Metallische Stifte: noch empfehlenswert?
• Glasfaserstifte: können sie uneingeschränkt empfohlen werden?
• Verbund zur Stiftoberfläche: Welche Vorbehandlung ist nötig?
• Adhäsion zum Wurzelkanaldentin: welche Materialkombinationen sind sinnvoll?
• Stiftinsertion: wie tief und wie passgenau?
• Evidenz und Prognose der postendodontischen Restauration

17:30 General Assembly ÖGEndo
Thursday, November 8, 2012

Sitzungssaal der ÖAW

18:00 - 21:00  **Fortbildung für Strahlenschutzbeauftragte**  
(gehm. § 41 Abs. 4 AllgStrSchV)  
Dr. Franz Hastermann


Wir weisen darauf hin, dass die Inhalte dieses Kurses künftig möglicherweise auch durch andere Fortbildungsveranstaltungen, Symposien oder Kongresse im Sinne der Strahlenschutzverordnung im vollen Umfang abgedeckt sein können, sodass nicht für alle ZahnärztInnen ein solcher Fortbildungskurs, wie er jetzt angeboten wird, unbedingt erforderlich ist.

Wir empfehlen die Teilnahme jenen KollegInnen, die Unklarheiten oder aktuelle Probleme im Zusammenhang mit dem Strahlenschutz haben oder von der Behörde kurzfristig zum Vorweisen eines Fortbildungszeugnisses aufgefordert wurden. Die TeilnehmerInnen erhalten die Teilnahmebestätigung am ENDE der Veranstaltung.
Dr. Luis Chavez de Paz

Dr. Chavez de Paz graduated with his dental degree from San Marcos National University in Peru. He moved to Sweden in 1999, where he obtained a MDS and a PhD from the University of Gothenburg under the supervision of Dr. Gunnar Bergenholtz. His PhD Thesis is entitled ‘On Bacteria Persisting Root Canal Infections’. In 2005, he moved to the University of Malmö where he was a postdoctoral research assistant until he moved to UCONN in 2011 to complete the postgraduate training in Endodontics. His major areas of research include microbial biofilms, bacterial physiology and stress responses. He has authored more than 25 publications, one textbook chapter in The Textbook of Endodontology and is currently editing a book on root canal biofilms. He is recurrently invited to lecture for endodontic societies and endodontic group studies where he covers microbial aspects of persisting root canal infections and microbial biofilms.

Univ. Prof. Dr. André Gahleitner

Born in Vienna, Austria: 1958
Schooling in Berlin, Germany and Graz, Austria: 1966-1978
Medical Studies in Graz and Vienna, Austria: 1979-1986
Specialization in Radiology, Medical University Vienna, Austria: 1991-1997
Specialization in Dentistry, Medical University Vienna, Austria: 1999-2002
Habilitation in Radiology: 2004
Member of Department of Neuroradiology and Musculoskeletal Radiology, Medical University Vienna
Head of the Division Radiology of the Dental School, Medical University Vienna

Dr. med. univ. Franz Hastermann

Facharzt für Zahn- Mund- und Kieferheilkunde, ÖÄK - Diplom für Krankenhaushygiene, Präsident der ÖGHZ
Medizinstudium an der UNI Wien
1986 Promotion zum Doktor der gesamten Heilkunde
1989 –1991 Ausbildung zum Facharzt ZMK an der Wiener Zahnklinik
Seit 1989 Mitglied des Zahnärztlichen Interessenverbandes Österreichs (ZIV)
ZIV-Vertrauensarzt, Vorstandsmitglied, „Hygienebeauftragter“ des ZIV
1990-2006 in der Standespolitik der Wiener Ärztekammer tätig.
2000-2006 Kammerrat der Ärztekammer für Wien
Delegierter der Bundesfachgruppe zu den Verhandlungen „Strahlenschutzgesetz“
und Verordnungen“ und für den „Arbeitskreis Instrumentenaufbereitung (Hygieneverordnung)“.
Seit 1.1.2006 (Gründung der Zahnärztekammer) Leiter des Referates für „betriebstechnische Auflagen und Qualitätssicherung“ der Landeszahnärztekammer Wien und Bundesdelegierter der ÖZÄK für den „Arbeitskreis Instrumentenaufbereitung (Hygieneverordnung)“.
Seit 2002 Österreichweit ständig zahlreiche Vorträge und Fortbildungsveranstaltungen zum Thema „Hygiene in der Zahnarztordination“, Instrumentenaufbereitung, etc. für ZahnärztInnen und AssistenInnen.
2009 Gründung der Österreichischen Gesellschaft für Hygiene in der Zahnheilkunde - ÖGHZ
Seit 2010 Präsident der ÖGHZ.
Seit 2011 Leiter der vorgeschriebenen Fortbildungsveranstaltungen für Strahlenschutzbeauftragte im zahnärztlichen Bereich

OA Dr. Gabriel Krastl
Klinik für Parodontologie, Endodontologie und Kariologie und Zahnunfallzentrum, Universitätskliniken für Zahnmedizin Basel
1993-1998 Studium der Zahnheilkunde in Tübingen (D)
1998-2002 Wissenschaftlicher Assistent der Poliklinik für Zahnerhaltung, Universitätsklinikum Tübingen
2000 Promotion
2002 Ernennung zum Oberarzt und Leiter des Phantomkurses
der Zahnerhaltungskunde
Seit 2005 Oberassistent an der Klinik für Parodontologie,
Endodontologie und Kariologie, Basel
Leiter Fachgruppe Kariologie
Leiter des Phantomkurses
Seit 2006 Gründung und Leitung des Zahnunfall-Zentrums Basel zusammen mit Prof. Dr. A. Filippi
2012 Forschungsjahr Department of Oral Surgery / Biomaterials Unit, School of Dentistry, University of Birmingham, United Kingdom.
Wissenschaftliche Schwerpunkte: Dentale Traumatologie, Postendodontische Restaurationen, Adhäsive Restaurationen
Mitglied folgender Fachgesellschaften: International Association of Dental Traumatology (IADT), Schweizerische Vereinigung für Präventive und Restorative Zahnmedizin (SVPR), Schweizerische Gesellschaft für Endodontie (SSE), Schweizerische Zahnärztesgesellschaft (SSO), Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde (DGZMK), Deutsche Gesellschaft für Zahnerhaltung (DGZ), Arbeitsgruppe für Endodontologie und Dentale Traumatologie (AGET).
**Pr Pierre Machtou, DDS, MS, PhD, FICD**

Prof. Dr. Pierre Machtou graduated 1967 at the Paris 7-Denis Diderot University. He completed his habilitation and became a full professor at the same University in 1997. He is the past scientific director and general secretary of the French Endodontic society. He is a member of numerous national and international endodontic and dental societies, such as AAE, ESE, Pierre Fauchard Academy, and is a Fellow of the International College of Dentists. In 2006, he was the recipient of the Pierre Fauchard’s Elmer S Best Memorial Award. Pierre Machtou serves as the associate Editor of Endodontic Practice and was scientific advisor of the IFEA World Congress in Paris 1992. He lectured and held seminars extensively in many countries worldwide. He is the author two books, 9 book chapters and 70 articles in peer review journals. He has limited his practice to Endodontics since 1978.

**Dr. Jose-Maria Malfaz, DDS MD PhD**

Dr. Jose-Maria Malfaz received his dental degrees from the Dental School University of Granada, Spain. He completed his specialty certificate in Endodontics at University of Southern California, USA, under Dr. James H. Simon. Also he graduated in Medicine and Surgery from the University of La Laguna, Tenerife (Spain), and earned a PhD degree in Medicine and Surgery from the University of Granada (Spain). He is Specialist Member of the American Association of Endodontists, Active Member of the Spanish Association of Endodontists (AEDE) and Member of the European Society of Endodontics (ESE). He is the current President-Elected of the Spanish Association of Endodontists (AEDE) and was President of the XXIX Annual Meeting of the Spanish Association of Endodontists (AEDE). He was awarded the American Association of Endodontists Resident Award in 2006. He has published clinical and scientific articles nationally and internationally. Dr. Malfaz teaches at different post-graduate and Continuum Education programs of Endodontics, and lecturer nationally and internationally. He maintains a private practice limited to Endodontics and Endodontic Surgery since 1994 in Valladolid, Spain.
Martin Trope, D.M.D.

Dr. Martin Trope was born in Johannesburg, South Africa where he received his BDS degree in dentistry in 1976. From 1976 to 1980 he practiced General Dentistry and Endodontics. In 1980 he moved to Philadelphia to specialize in Endodontics at the University of Pennsylvania. After graduating as an Endodontist he continued at the University of Pennsylvania as a faculty member until 1989 when he became Chair of Endodontology at Temple University, School of Dentistry. In 1993 he accepted the JB Freedland Professorship in the Department of Endodontics at the University of North Carolina at Chapel Hill, School of Dentistry. Named in honor of one of the founding fathers of Endodontics, the Freedland Professorship recognizes significant contributions to the specialty.

Dr. Trope is now Clinical Professor, Department of Endodontics, School of Dental Medicine, University of Pennsylvania. He is also in private practice in Philadelphia, PA. Dr. Trope has served as a Director of the American Board of Endodontics. Before entering full time private practice he was editor-in-chief of two journals, Dental Traumatology and Endodontic Topics. He also serves on the Editorial Board of Oral Surgery, Oral Medicine, Oral Pathology and on the Advisory Board of Esthetic Dentistry.

Dr. Trope’s major research interests include dental trauma, clinical outcomes, and new diagnostic tests for pulpal and periapical disease. Recently he has also been involved in material development for root canal filling. His work has been published in numerous journals and book chapters. In April 2002 he was awarded "The Louis I. Grossman Award" for cumulative publication of significant research by the American Association of Endodontists.

Dr. Trope has created TEC TEACHING drawing on his extensive academic background and “real world” experience in private practice.
Es gibt Momente...
...wo schneller Service gefragt ist.

Der technische Service von pluradent austria.

Technische Defekte beeinträchtigen Ihre Leistungsfähigkeit oder verursachen sogar einen Praxisstillstand.

Hier hilft der österreichweit flächendeckende Service­dienst von pluradent austria:
Seine intelligente Einsatzsteuerung, modernste Ersatzteil­logistik und die Kompetenz von 17 laufend geschulten Technikern machen Sie schnell und zuverlässig wieder flott.

Und das für Sie maßgeschneiderte Wartungsservice vermeidet weitgehend unliebsame Ausfälle.

Damit Sie sicher arbeiten können.
Und ruhig schlafen.

Fragen Sie uns!
pluradent austria: 01 544 1594-0
F360.

Liebe Kolleginnen und Kollegen!

Es ist mir eine außerordentliche Freude, Sie zu unserem alle zwei Jahre stattfindenden Kongress, der diesmal wieder in der Akademie der Wissenschaften in Wien abgehalten wird, einladen zu dürfen.

Nach der erfolgreichen Jahrestagung Ende Oktober 2011 in Salzburg, die sich mit den neuesten praxisrelevanten Techniken der Endodontie befasst hat, haben wir diesmal ein Programm zusammengestellt, das verstärkt auch die Schnittpunkte mit anderen Disziplinen wissenschaftlich beleuchtet. So ist ein Vortrag der digitalen Volumetromographie gewidmet, ein spannendes Thema, das noch relativ selten in den Praxisalltag integriert ist, in Zukunft aber sicher weite Verbreitung finden wird.

Weiters ist es uns gelungen, als Hauptreferenten Prof. Pierre Machtou aus Paris sowie Prof. Martin Trope aus Philadelphia zu gewinnen, die ein Highlight jeder internationalen endodontischen Veranstaltung sind.

Um unsere Veranstaltung noch attraktiver zu machen, haben wir beschlossen, diesmal eine Simultanübersetzung aus dem Englischen ins Deutsche und für Kollegen aus dem Ausland in die englische Sprache zu organisieren.

Nicht zuletzt möchte ich darauf hinweisen, dass wir neben dem hohen wissenschaftlichen Qualitätsanspruch des Kongresses auch eine tolle Abendveranstaltung in einen der Hotspots Wien’s, im Motto am Fluss, vorgesehen haben.

Ich hoffe, Sie sind neugierig geworden und ich freue mich sehr, Sie in Wien bei einer sowohl wissenschaftlichen als auch im Rahmenprogramm außergewöhnlichen Tagung begrüßen zu dürfen.

Dr. Karl Schwaninger
Kongresspräsident
Komitees & Organisation

Kongress-Präsident
Dr. Karl Schwaninger

Kongress-Sekretäre
Dr. Johann Reichsthaler
DDr. Johannes Klimscha

Wissenschaftliches Komitee
Univ.-Prof. DDr. Andreas Moritz (Wien)
Ass.-Prof. Univ.-Doz. Dipl.-Ing. Dr. Reinhard Gruber (Wien)
Prof. Dr. Kurt Ebeleseder (Graz)

Kongressbüro
Wiener Medizinische Akademie
Alser Straße 4
1090 Wien, Austria
T +43 1 405 13 8311
F +43 1 407 82 74
E oegendo2012@medacad.org
www.medacad.org

Hotelbuchungen und touristische Anfragen
Hotelreservierung
Lisa Helbok
Tel: +43 1 588 04 164
helbok@mondial.at

Tagungsort
Österreichische Akademie der Wissenschaften (ÖAW)
Dr. Ignaz Seipel-Platz 2, 1010 Wien
www.oeaw.ac.at

Die Registratur ist geöffnet:
Freitag, 9. November, 2012 08:00 – 18:00 Uhr
Samstag, 10. November, 2012 08:30 – 17:30 Uhr
### Teilnahmegebühren

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitglieder der ÖGEndo</td>
<td>290,-</td>
<td>340,-</td>
</tr>
<tr>
<td>Nicht-Mitglieder der ÖGEndo</td>
<td>450,-</td>
<td>500,-</td>
</tr>
<tr>
<td>UniversitätsassistentInnen</td>
<td>190,-</td>
<td>240,-</td>
</tr>
<tr>
<td>StudentInnen</td>
<td>75,-</td>
<td>125,-</td>
</tr>
</tbody>
</table>

Die Anmeldung ist möglich via [www.oegendo.at](http://www.oegendo.at)

Vor-Anmeldungen sind bis 2. November 2012 möglich.

### Stornobedingungen und Zahlungsmodalitäten


### ÖGEndo-Clubbing im "Motto am Fluss"

Preis pro Person (inkl. Getränke und Buffet): **EUR 60.-**

Freitag, 9. November 2012, 19.30 Uhr
Franz Josefs Kai/Vorkai, 1010 Wien
Zwischen Marienbrücke und Schwedenbrücke
Diplomfortbildungsprogramm


Information für Sprecher

Vortrag


Redezeit

Ihre Redezeit entnehmen Sie bitte dem detaillierten wissenschaftlichen Programm. Bitte beachten Sie, dass Diskussionszeit nicht in den angegeben Zeiten enthalten ist. Sie werden gebeten auf die Einhaltung der Redezeit zu achten, um Programmverschiebungen zu meiden.

Information für Poster

Anbringen / Abnehmen


Posterbegehung

findet am Freitag, den 9. November anschließend an die Young Scientist Präsentationen statt.

Posterformat

Die benutzbare Fläche der Posterwände ist 90 cm breit x 130 cm hoch (ca. 35 x 51 inches). Es können nur Pins für die Befestigung der Poster benutzt werden.

Awards

Functionalizing biomaterials with prolyl hydroxylase inhibitors

H. Agis1, H. Müller1, L. Huber1, B. Cvikl (2) G. Watzek1, R. Gruber1,3
1Department of Oral Surgery, Medical University of Vienna and Austrian Cluster for Tissue Regeneration; 2Unit-Division of Dental Student Training and Patient Care, Medical University of Vienna; 3Laboratory of Oral Cell Biology, School of Dental Medicine, University of Bern, Switzerland

Introduction: In dentistry, hard and soft tissue regeneration is supported by biomaterials such as capping materials, bone substitutes, and barrier membranes. Successful regeneration, however, depends on the ability of the tissue to heal. If healing is compromised, strategies that support the healing process are required. Recently, targeting the oxygen sensors by prolyl hydroxylase (PHD) inhibitors has been shown to enhance hard and soft tissue healing, likely by stimulation of angiogenesis. These PHD inhibitors stabilize the transcription factor hypoxia inducible factor-1 alpha and induce the production of vascular endothelial growth factor (VEGF). Here we asked the question whether clinically used biomaterials can be utilized as carriers for PHD inhibitors in dentistry.

Material and methods: Calcium hydroxide, inorganic bone mineral, tricalcium phosphate, hydroxylapatite, and collagen barrier membranes were loaded with the PHD inhibitors dimethyloxaloylglycine, desferrioxamine, L-mimosine and cobalt chloride. To assess the release kinetic of the PHD inhibitors bioassays with fibroblast derived from the dental pulp, the periodontal ligament and the gingiva performed. We assessed the impact of supernatants from the biomaterial on viability, proliferation, and protein synthesis with the MTT, [3H]thymidine and [3H]leucine incorporation assays. The effect on the pro-angiogenic capacity was measured by immunoassays for VEGF.

Results: Our data show that supernatants from inorganic bone mineral, hydroxylapatite, tricalcium phosphate, and collagen barrier membranes, all loaded with PHD inhibitors, stimulate VEGF production of fibroblasts from pulp, gingiva, and periodontal ligament. However, supernatants from calcium hydroxide loaded with PHD inhibitors failed to increase VEGF in the in vitro model. No toxic effects were observed at concentrations that where sufficient to stimulate VEGF production.

Conclusion: Our results show that PHD inhibitors released from bone substitutes and collagen barrier membranes maintain their capacity to stimulate the production of VEGF in fibroblasts. The capping material calcium hydroxide is no suitable carrier under these conditions. Further studies are required to reveal if other capping materials can serve as suitable carriers for PHD inhibitors.
Using E glass fibers in obturation of root canal system
K. El Batouty
1Endodontic Department School of Dentistry Ain Shams University Cairo Egypt

Using E glass fibers, a light transmitting root canal filling material (GF) was manufactured as a prototype for research purpose. GF cones are of different ISO standardized sizes. The GF transmits light to the apical area of the canal allowing the future use of light cure self adhesive sealers and better polymerization of dual cure resin sealers. It was found that the GF seal the root canal efficiently. The ability of GF to reinforce weakened root canal treated tooth structure and its resistance to dislodgment were evaluated. Based on the results of these studies, it was concluded that GF provided tooth reinforcement equivalent to that of fiber reinforced posts and superior to metallic posts. Moreover, GF exhibited far better resistance to dislodgment than both posts. Based on this evidence, GF succeeded to act simultaneously as a root canal filling material and a post in maxillary central incisors. Another study was conducted to compare the bond strength to root canal dentin of GF and MetaSeal to other filling systems. GF showed the highest total bond strength mean value which was significant from other groups. Despite the obstacles, the bonding inside root canal is facing these days, the future lies in it. GF seems to be a promising system; however, further investigations were conducted to evaluate other parameters of this root canal filling material. These include cytotoxicity, ease of removal and degree of polymerization of resin sealers after light transmission. The results of all these researches will be presented in the lecture.

Comparative study of IL17 in normal &symptomatic dental pulps by immunohistochemistry technique
S. A. Mousavi1, M. Hoseinian2, V. Kargar3
1Post graduate student of Endodontics, Isfahan University of medical sciences; 2Endodontist; 3Student of dentistry

IL17 is a pro inflammatory cytokine which is Produced by from CD4+ Th17 cells and compensate defects of classic model of Th1/Th2. It has been stated that interleukin 17 increase in many autoimmune disease, skin and joint infection and dental periradicular lesions. It also has an axial role in initiation and propagation of immune response. One of its destructive functions is by acting on osteoclasts. The aim of this study is evaluation of IL17 tissue protein expression in normal and symptomatic dental pulps.

Material and methods: Healthy and irreversible dental pulp samples were obtained from 20 third molars and 20 premolar and molars with caries that had including criteria for our study after processing dental pulp samples. The immunohistochemistry technique was applied. Distribution and staining intensity IL17 proteins were evaluated by SID score.
Results: Analyzing SID score with Mannwhitney test showed significant increase of IL17 (P= 0.002) in symptomatic dental pulp tissues (2.35±1.225) compare to healthy samples (1.15±0.933).
Conclusion: The results suggest that IL17 may serve as a pathologic marker of inflammatory action in irreversible pulpitis.

Prolyl hydroxylase inhibitors increase the production of vascular endothelial growth factor in human dental pulp cells

H. Müller1, B. Cvikl2, G. Watzek1, R. Gruber1,3, H. Agis1
1 Department of Oral Surgery, Medical University of Vienna and Austrian Cluster for Tissue Regeneration; 2 Unit-Division of Dental Student Training and Patient Care, Medical University of Vienna; 3 Laboratory of Oral Cell Biology, School of Dental Medicine, University of Bern, Switzerland

Introduction: The success of dental pulp capping depends on the ability of the pulp to heal. If healing is compromised, strategies that support the healing capacities are indicated. One key element of tissue regeneration is angiogenesis, which is governed by the labile transcription factor hypoxia inducible factor (HIF)-1alpha. Prolyl hydroxylase (PHD) inhibitors can stabilize HIF-1alpha and induce a pro-angiogenic response that stimulates soft and hard tissues regeneration. However, the effects of PHD inhibitors on the dental pulp are unclear. The purpose of this study was to evaluate the effects of PHD inhibitors on the pro-angiogenic capacity of human dental pulp cells.

Material and methods: To reveal the response of dental pulp cells to PHD inhibitors, dental pulp cells were exposed to dimethyloxaloylglycine, desferrioxamine, L-mimosine and cobalt chloride. Viability, proliferation and protein synthesis were assessed by the MTT, 3[H]thymidine and 3[H]leucine incorporation assays. The effects on the intracellular levels of HIF-1alpha and the pro-angiogenic capacity was measured by Western blotting for HIF-1alpha and immunoassays for vascular endothelial growth factor (VEGF), respectively.

Results: At millimolar concentrations we observed that PHD inhibitors can reduce viability, proliferation and protein synthesis. At lower, non-toxic concentrations dimethyloxaloylglycine, desferrioxamine, L-mimosine and cobalt chloride inhibitors increased the intracellular levels of HIF-1alpha and stimulated the production of VEGF in human dental pulp cells.

Conclusion: Our findings suggest that dental pulp cells respond to PHD inhibitors that stabilize HIF-1alpha and stimulate VEGF production. These findings provide the scientific rational to study the impact of PHD inhibitors on dental pulp healing in organ cultures and in preclinical models. Together this studies will reveal the therapeutic capacity of PHD inhibitors in the field of endodontics.
L-mimosine increases the production of vascular endothelial growth factor in human tooth slice organ culture model

K. Trimmel¹, H. Müller¹, B. Cvikl², R. Gruber¹,³, G. Watzek¹, H. Agis¹
¹Department of Oral Surgery, Medical University of Vienna and Austrian Cluster for Tissue Regeneration; ²Unit-Division of Dental Student Training and Patient Care, Medical University of Vienna; ³Laboratory of Oral Cell Biology, School of Dental Medicine, University of Bern, Switzerland

Introduction: L-mimosine, a prolyl hydroxylase inhibitor, can induce a pro-angiogenic response in cells derived from the gingiva, the periodontal ligament, and the dental pulp, as shown recently by our group. The impact on the pulp-dentin complex is, however, unknown. Here, we assessed the effect of L-mimosine on the pro-angiogenic and pro-inflammatory capacity of human dental pulp explants.

Material & methods: To test for the response of dental pulp we utilized a tooth slice organ culture model. Teeth were sectioned transversely into 600 μm-thick slices and cultured in medium supplemented with fetal calf serum with antibiotics. The tooth slices were stimulated with L-mimosine. Culture supernatants were subjected to immunoassays for vascular endothelial growth factor (VEGF) and IL-6. Tooth slices were subjected to viability measurements by the MTT assay based on formazan formation.

Results: We found that L-mimosine stimulated VEGF production when normalized to formazan formation in the tooth slices. These findings are in line with our results from cultures of dental pulp derived cells. IL-6 was not significantly increased by L-mimosine when normalized to formazan formation in the pulp tissue. As positive control for a pro-inflammatory response tooth slices were stimulated with IL-1. We found that IL-1 increases IL-6 thereby confirming that the model is suitable to detect changes in IL-6 levels.

Conclusion: Together our results suggest that the prolyl hydroxylase inhibitors L-mimosine increases VEGF production in the tooth slice organ culture model while leaving the IL-6 production unchanged. Thereby the tooth slice organ culture model provides first insights into the impact of prolyl hydroxylase inhibitor on the pulp-dentin complex. Preclinical studies are required to reveal the impact on pulp regeneration.
Biofilms are multispecies communities of microorganisms that form in root canals and may spread to the adjacent periapical tissues during acute phases of infection. Biofilms associated to infected root canals will provoke persistent inflammatory reactions that will jeopardize the outcome of the root canal treatment. With the recent inclusion of biofilm biology as a main research subject in endodontology, many aspects of the multicellular lifestyle of root canal biofilms can be revealed. For example, root canal biofilms acting as multicellular organisms will facilitate the interactions among its members to perform a wide range of cooperative actions, such as nutrient acquisition, colonization, cell-to-cell communication and resistance to antimicrobials. This presentation will focus on reviewing current and novel concepts of biofilm biology with emphasis in recent studies that approaches biofilms formed in root canals as complex multicellular organisms.

12:30 – 14:00 Mittagspause

14:00 – 15:30 Vital Pulp Therapy. What our knowledge from trauma teaches us in the treatment of the carious exposure.
M. Trope, Philadelphia (US)

We have good knowledge about the requirements for success after trauma to vital teeth. In a carious exposure the conditions are much less predictable and therefore our treatment protocols and outcomes are similarly unsure. New knowledge and materials may allow us more predictability in vital pulp therapy in cariously exposed teeth. In this talk I will review our knowledge on vital pulp therapy in traumatized teeth and relate this knowledge to the carious exposure. I will propose a protocol for the treatment of carious exposures that expands vital pulp therapy in the endodontic treatment of vital teeth.

15:30 – 16:00 Kaffeepause
A dentist must have a solid biologic basis for all treatments that he/she performs. All new techniques or technologies must be assessed in the context of their ability to achieve the biologic objective to ensure maximal success. The biologic requirements for predictably successful endodontics will be presented. Essential concepts such as 1. Vital vs Necrotic teeth 2. Minimal Apical Sizes 3. Irrigation protocols 4. Bonded Root Filling Materials and 5. One Step Endodontics will be discussed.
Samstag, 10. November 2012

09:00 – 09:30  Grundlagen der dreidimensionalen Radiodiagnostik – Anwendungen in der Endodontie  
A. Gahleitner, Wien (AT)

While conventional imaging methods as panoramic radiography and dental film are very useful in evaluating jaw and teeth related anatomy as well as pathology, newer radiologic methods as cross-sectional imaging techniques, have continuously gained importance.

More recently tooth related findings have been found to be accesible using MultiSlice and ConeBeam-CT. This presentation will focus on the technique and usefulness of cross-sectional imaging for treatment as well as anatomic conditions, variants and complications leading to success or failure. Furthermore the correct imaging technique and the most important error sources will be discussed.

09:30 – 10:30  Applications of Volumetric Tomography in Endodontics: CBCT  
J-M. Malfaz, Valladolid (ES)

As we know, the diagnosis and treatment plan in Endodontics depends to a great measure on the radiographs and the information obtained from its 2 dimensions. The recent and rapid addition of volumetric tomography or cone beam computed tomography (CBCT) in dentistry has allowed us to see the desired third dimension that was missing in periapical and panoramic radiographs. Now with a simple technique and a reasonable radiation exposure, not only can we see the missing plane that could have obtained with conventional radiographs, we can reconstruct digitally the volumetric image in high resolution so that we can study the depths of pathology and structures affecting Endodontics. This includes, amongst others, the study of the complex dental anatomy, the differential diagnosis of periapical lesions, traumatology and dento-alveolar fractures and resorptions.

10:30 – 11:00  Kaffeepause

11:00 – 12:30  Root Canal Preparation : Modern Techniques Part 1  
P. Machtou, Paris (FR)

Predictable endodontic requires the fullfilment of biological and technical objectives. Since it is well agreed that the technical quality of the root canal treatment has a direct relationship with the outcome, the clinical goal is to achieve a proper management of the root canal anatomy. In the last 15 years, new clinical concepts for cleaning and shaping the root canal have evolved along with technological advancements. Therefore, canal preparation has been made easier and faster whilst respecting both biological and mechanical objectives. Rotary NiTi instrumentation has made the cleaning and shaping of root canal systems faster, easier and predictable. However, some clinicians are still reluctant to routinely use this technique for fear of meeting instrument fracture. The WaveOne™ concept is a new approach which implements an
assymetric reciprocating motion with a single instrument to completely shape the root canal. In this concept, a specially designed file works in a motorized balanced force action using a pre-programmed motor. Simplicity is the real innovation along with an improved safety, a reduced shaping time, cost saving and virtually no learning curve for the operator.

Backed by scientific research and clinical cases, a detailed description of the WaveOne concept will be provided.

Following attendance at this lecture attendees can expect a deeper understanding of:
- The importance of access before mechanized canal instrumentation
- How to negotiate difficult canals
- The benefits of a secured glide path
- The cleaning and shaping sequence with WaveOne

12:30 – 13:30 Mittagessen

13:30 – 14:30 Root Canal Preparation: Modern Techniques Part 2
P. Machtou, Paris (FR)

See abstract above (Part 1)

14:30 – 15:00 Kaffeepause

15:00 – 17:30 Restauration des avitalen Zahnes
G. Krastl, (CH)

Es gilt als gesichert, dass die Prognose wurzelkanalbehandelter Zähne nicht nur von den durchgeführten endodontischen Maßnahmen abhängt, sondern auch ganz entscheidend von der postendodontischen Restauration beeinflusst wird. Ihre primären Ziele sind eine dauerhaft bakteriendichte Versiegelung des Zugangs zum endodontischen System sowie die Wiederherstellung der Funktion und die Frakturprophylaxe. Nicht zuletzt durch die Adhäsivtechnik und deren Anwendung im Wurzelkanal sowie die Einführung neuer Materialien zur Wurzelstiftherstellung hat die restaurative Therapie wurzelkanalbehandelter Zähne grundlegende Änderungen erfahren. Ausgehend vom Zahntyp und vom koronalen Zerstörungsgrad werden Therapieoptionen für den Aufbau (mit und ohne intrakanaläre Stiftverankerung) und die weitere Versorgung endodontisch behandelter Zähne besprochen und exemplarisch belegt. Weiterhin werden folgende Punkte diskutiert:
• Avitaler Zahn: was ist anders?
• Metallische Stiftsysteme: noch empfehlenswert?
• Glasfaserstifte: können sie uneingeschränkt empfohlen werden?
• Verbund zur Stiftoberfläche: Welche Vorbehandlung ist nötig?
• Adhäsion zum Wurzelkanaldentin: welche Materialkombinationen sind sinnvoll?
• Stiftinsertion: wie tief und wie passgenau?
• Evidenz und Prognose der postendodontischen Restauration

17:30 Generalversammlung ÖGEndo
Donnerstag, 8. November 2012

Sitzungssaal der ÖAW

18:00 - 21:00  Fortbildung für Strahlenschutzbeauftragte
              (gem. § 41 Abs. 4 AllgStrSchV)
              Dr. Franz Hastermann


Wir weisen darauf hin, dass die Inhalte dieses Kurses künftig möglicherweise auch durch andere Fortbildungsveranstaltungen, Symposien oder Kongresse im Sinne der Strahlenschutzverordnung im vollen Umfang abgedeckt sein können, sodass nicht für alle ZahnärztInnen ein solcher Fortbildungskurs, wie er jetzt angeboten wird, unbedingt erforderlich ist.

Wir empfehlen die Teilnahme jenen KollegInnen, die Unklarheiten oder aktuelle Probleme im Zusammenhang mit dem Strahlenschutz haben oder von der Behörde kurzfristig zum Vorweisen eines Fortbildungszeugnisses aufgefordert wurden. Die TeilnehmerInnen erhalten die Teilnahmebestätigung am ENDE der Veranstaltung.
“Motto am Fluss”
Der Moment, in dem aus einem verborgenen Detail Ihr sichtbarer Erfolg wird.
Für diesen Moment arbeiten wir.