**International events**

**2010**

1st Croatian–German Implantology Meeting of DGZI
Where: Hvar, Croatia
Date: 10–12 June 2010
Website: www.hvarkongres.hr

FDI Annual World Dental Congress
Where: Salvador da Bahia, Brazil
Date: 02–05 September 2010
Website: www.fdiworldental.org

7th Forum of Innovations in Dentistry
Where: Leipzig, Germany
Date: 10–11 September 2010
Website: www.event-fiz.de

40th International Congress of DGZI
Where: Berlin, Germany
Date: 01–02 October 2010
Website: www.dgzi.de

19th Annual Scientific Meeting of EAO
Where: Glasgow, Scotland
Date: 06–09 October 2010
Website: www.eao.org

AAID 59th Annual Meeting
Where: Boston, MA, USA
Date: 20–23 October 2010
Website: www.aaid.com

96th Annual Meeting of AAP
Where: Honolulu, USA
Date: 30 October–2 November 2010
Website: www.perio.org

17th AIDC 2010
Where: Alexandria, Egypt
Date: 2–5 November 2010
Website: www.aidc-egypt.org

Greater New York Dental Meeting
Where: New York, NY, USA
Date: 26 November–01 December 2010
Website: www.gnydm.org

**2011**

34th International Dental Show
Where: Cologne, Germany
Date: 22–26 March 2011
E-Mail: ids@koelnmesse.de
Website: www.ids-cologne.de

International Osteology Symposium
Where: Cannes, France
Date: 14–17 April 2011
Website: www.osteology-cannes.org
The large number of participants (40 in total) who attended DGZI’s (German Association of Dental Implantology) weekend course “Anatomy” in early October 2009 in Dresden has clearly shown that many colleagues want to be kept up to date about research in this field, in order to make the right professional decisions. This course is now also offered in English.

Thanks to the clearly-structured concept and a theoretical introduction (an impressive demonstration including a live video broadcast from the dissecting room and patient-side practices using human specimens), the participants obtained the professional skills needed by practicing surgeons and implantologists in only two days.

A specially designed DGZI course module for anatomy has already been part of the Implantology curriculum for one decade. In particular, colleagues who only want to refresh their anatomical knowledge in a two-day professional training course can register for the current weekend course—ideal for colleagues who may have realized that two years after their state examination they are no longer able to recall the enormous knowledge required. Consequently there were many guest participants who took part in the Implantology curriculum. The contributions of anatomist Dr med. habil. Wolfgang Schwab of TU Dresden, oral biologist and anatomist Prof Dr Werner Götz of the University of Bonn, dissection assistant Ute Nimtschke, implantologists Dr Rainer Valentin and Dr Rolf Vollmer, and oral surgeons Dr Martina Vollmer and Dr Uta Voigt meant that the course was in competent hands as well as ensuring that the different points of view of the various disciplines were considered. The first day of the course was dedicated to a thorough introduction to the anatomy of the skull, including an exact demonstration of the supply for nerves and blood vessels and the anatomy of bones, tongue, throat and larynx. In order to explain the particular surgical basics, the speakers demonstrated the procedures used for autologous and xenogenous augmentation and those for bone spreading. The highlight of the day was the application by Dr med. habil. Schwab and Prof Dr Götz theoretically obtained knowledge to an actual anatomical specimen. Courtesy of certain modern techniques, including the video broadcast from the dissecting room, the participants could ask questions in real time during the presentation. The second day of the course started again with a theoretical introduction—this time Dr Rolf Vollmer introduced the different implantological techniques. The sponsoring companies (Geistlich, mectron, Schütz, Zepf) explained the features of all of the instruments and working materials which they had provided so that the participants could practice the acquired techniques with them. Towards the end, Dr Schwab and Dr Valentin demonstrated an autologous bone removal from the iliac crest. This highly successful professional training weekend was completed efficiently and to high standard. All participants agreed that a follow-up of this course should take place in October 2010.
Various approaches, complications among meeting highlights, different approaches to implant therapy and solutions to unexpected complications were among the highlights of the Academy of Osseointegration’s 25th Anniversary Annual Meeting, March 4–6, at the Walt Disney World Dolphin Resort in Orlando.

It is no surprise that the German Association of Dental Implantology (DGZI) took part in this year’s congress in the United States of America, as the AO is the DGZI’s largest affiliated association. Members of the Board Dr Rainer Valentin and Dr Rolf Vollmer as well as DGZI’s international representative Dr Mazen Tamimi attended lectures and exhibitions at the Walt Disney World Dolphin Resort.

To start the conference the current President of the AO Vincent J. Jacono presented the congress program and noted that the Academy’s mission should be the improvement of oral health. In order to be able to do so, colleagues were brought up to date about the state of the art in implantology and tissue regeneration.

The 25th anniversary annual meeting started on Thursday, March 4, with the opening symposium, “A Quarter Century of Experience: The Formula for Predictable Implant Success in the Esthetic Zone.” Other AO Annual Meeting highlights included Hands-on workshop: The pre-meeting, daylong series of sessions explored how 3-D imaging and navigation technology helps providers fabricate surgical templates, generate final prosthesis and place implants more effectively as part of the “team approach” concept.

AO’s 2010 Corporate Forum featured 36 manufacturer-hosted educational sessions concerning the latest research, products and developments. During the congress different options concerning implant therapies and solutions for unexpected complications were discussed in details in the main podium. Colleagues could also attend hands-on workshops and listen to the AO corporate panel.

“Treatment Approaches: Controversies in Implant Dentistry,” held on Friday, March 5, and Saturday’s “Unexpected Complications: Complications and Solutions,” were the key pillars of the meeting’s overall

Authors: Dr Rolf Vollmer & Dr Rainer Valentin, Germany
In addition, colleagues from all over the world exhibited more than 250 posters throughout the conference. One full day was dedicated to surgical problems in the esthetic zone as well as to the types of esthetic problems prosthetists have to deal with. The prosthetic handling of angulated placed implants, biological and technical complications, and endodontics, which competes against implants, were discussed in particular. Altogether this was a very successful congress with more than 2000 participants. Like every year, DGZI was invited to the International Affiliates Committee on Saturday afternoon, an event also attended by delegations from Canada, Japan, England and Italy. The current President Iacono asked all participants to contribute ideas concerning future cooperation amongst affiliates.

The participants agreed on the fact that, in these times of globalization, no single country should be secluded from the global community. However, the situation in other countries may nonetheless be extremely different. One point for example is the language barrier of the Japanese colleagues. The so called Annual Business Meeting took place after the meeting of the international affiliates. The new President Dr. Peter Moy delivered his inaugural speech, and he thanked all speakers and representatives of affiliated associations, especially those who came from far away, for their attendance.

“The 2010 meeting served as a celebration of everything we have learned in the past 25 years, and how that knowledge can be applied for the benefit of our patients today,” Annual Meeting Committee Chair Dr Stuart Froum, New York, N.Y., explained.

The next AO congresses will be held in Washington, DC from March 3–5, 2011, in Phoenix, Arizona from March 1–3, 2012, in Tampa, Florida from March 7–9, 2013, and in Seattle, Washington from March 6–8, 2014. All colleagues interested in attending one of those meetings together with us, should contact the DGZI office in Düsseldorf for further details.
implants

2010

March traditionally blesses Egypt with superb weather – warm days and soft evenings, which allow Egyptian hospitality to be showcased perfectly. Certainly the weather conditions were just one of the reasons to join the second international dental congress and 6th Arab-German Implantology Meeting held in Cairo on 24–26 March 2010.

On behalf of the Faculty of Oral and Dental Medicine of Cairo University, Professor Nour Habib, Dean of the Faculty, addressed a warm welcome to all the participants of the second international dental congress held in Cairo on 24–26 March, 2010.

In the opening ceremony of the Congress he highlighted the Conference's aims to promote professional development among dentists by acting as a means for communication and by encouraging discussion and research in all areas of dental practice. “We seek also to promote the dental profession in the community at large and to develop a spirit of cooperation with other organizations and groups with common interests and concerns,” Professor Nour Habib explained.

The Congress also hosted the 6th Arab-German Implantology Meeting, moderated by well known scientific presenters from the Board of the German Association of Dental Implantology (DGZI) who worked as a team of distinguished professionals to resolve a tricky dental scenario.

The venue chosen to host the congress was Cairo InterContinental City Stars Hotel, where a huge floor-space accommodated the innovative associated Dental Trade Industry display. There was ample space for
the profession to experience the new technologies and materials that were showcased at the event. The Conference was complemented by an exhibition which provided the participants with the valuable opportunity to engage with vendors and explore the diversity of dental products and services available to support them in their work. Dr Mazen Tamimi, International Representative of DGZI, Scientific chairman and Dr. Rolf Vollmer, 1st Vice President of DGZI and Congress Chairman welcomed more than 30 participants from Egypt and Middle East. They promised an interesting one day scientific program with international key note speakers and colleagues presenting their master thesis as well. “Excellent education is one of the main focuses of DGZI and is something we concentrate on for the sake of our patients. In this way, we can ensure that our professionals benefit from the best education possible without having to turn to fee-charging companies,” was the statement of Dr Tamimi.

_Scientific Program on Friday 26th of March 2010_

Abstracts

**Key note Speakers**

**Dr Roland Hille, Germany**

**The way to the esthetical success**

Implantology in the aesthetic zone is one of the biggest challenges in dentistry. An exact analysis of the clinical situation before we start with our treatment gives us confidence in our treatment plan. We must know the problems as well as the outcome before we start with our surgery and we also must have a clear conception of the final aesthetic prosthetic situation. The patient contemplates only the crown, not the implant in the bone. The patient’s desire is to get a perfect aesthetic restoration which lasts for a long time. In particular, we need soft tissue support to achieve a perfect aesthetic result. This lecture provides information about important points to achieve success in the aesthetic zone, and also shows mistakes one should avoid.

**Dr Suheil Boutros, USA**

**New Concept in Preparing the Lateral Window in Sinus Lift Surgery**

The lateral window sinus lift is a well-documented treatment modality used to augment the posterior maxilla when the remaining alveolar bone is 5 mm or less in height. Several methods of preparing the window have been proposed and documented, including the use of diamond and end-cutting burs and more recently the use of piezo surgery. Each of these techniques has its limitations; for example, the use of cutting burs presents higher incidences of the Schneideri membrane perforation, where as high as 40% has been documented. More recently the use of piezo surgery has been presented as an effective and safe means in lateral window preparation. The only limitation found with this surgery is that if the lateral wall is thick, it may become a time-consuming and less effective technique. The new innovation utilizes a large size side cutting bur, which is 5-7mm in diameter, making it very safe, predictable and a fast way to prepare the window.

**Dr Mazen Tamimi, Jordan**

**Block Grafts as an option of treatment of severely atrophied mandible and maxilla**

Several options for treating a severely atrophied mandible with less than 8 mm of bone remaining above the inferior alveolar nerve will be discussed. These include:

- Bone block grafts of autogeneous origin or allograft
- Distraction Osteogenesis
- Nerve trans-positioning; exact technique & videos
- How to perform these advanced surgery solutions
- Short implants as an alternative.

There will be a discussion regarding how to choose a suitable treatment option, and how to perform that technique.

**Dr Robert Laux, Germany**

**Telescopic Attachments, New Modern Concept of Abutments and Transfers**

Telescope or conical crowns have been recognized as successful connection elements for natural abutments for several decades now. They also offer excellent hygiene. Telescopes require perfect parallelism or a well-defined slight conicity of the primary copings. This can only be achieved with custom components or customized prefabricated components. Conical crowns with a cone angle of 4° allow for axial divergence between adjacent implants of up
to 8°. However, given the anatomical shape of the jaws, especially the maxilla, it is almost impossible to place anterior implants so that they do not exceed this axial divergence. The problem of angle compensation has to be resolved in the simplest possible manner. Any manipulation at the laboratory constitutes a compromise that defeats the purpose of working with prefabricated components. The Kobold, the Titan and the complete abutment are systems which lead to easier success in fixed and removable implant-prosthetics.

Dr Rolf Vollmer, Germany
The posterior atrophied maxilla. Patient-centered choice of treatment

Sinus lifting techniques have been known about for more than 20 years and are accepted as standard techniques, ie beyond the experimental stage. This lecture describes the development of sinus lift from its origins and explains the indirect and direct methods as well as giving hints for their different indications. However, alternatives to these sinus lift procedures should also be considered, and we will therefore discuss minimally invasive procedures which may be possible in the future.

Prof Dr Dr Ralf Gutwald, Germany
Bioengineering in Implantology

For reconstruction prior to dental implantation the gold standard is still autologous bone. Disadvantages are the limited availability of bone and the necessity of an additional surgical procedure which always implies the risk of donor site morbidity. External Tissue Engineering procedures for hard tissue augmentations of the maxilla offer advantages compared with conventional grafts, as there is minimal or no donor site morbidity. Additionally, Internal Tissue Engineering with bone-inducing factors like BMP-2 look promising for use in bone augmentation procedures.

Current research aims at investigating the influence of stem cells on biomaterials. In animal experiments stem cell application (a chair side procedure) in combination with a biomaterial (BioOss) show lamellar bone formation. The volume preservation was better in the test side than in the control side where cancellous bone was applied only. The new bone formation was comparable.

In a clinical multi centre study 45 sinuses were augmented with BioOss and stem cells (test) and 25 sinuses were treated with a mixture of BioOss and autologous bone (control). Biopsies were obtained when implants were inserted after three months. There were also no differences in new bone formation.

Dr Hussam Bakki, MSc
Krems University, Kuwait
The Presence of Underwood’s Septa in the Maxillary Sinus Among The Population of Kuwait

This thesis is intended to examine the frequency of Underwood’s Septa amongst the population of Kuwait, and consider how to deal with it while implementing sinus lift surgery by proper planning considering the septa’s morphology and location, based on a reliable CT scan imaging. For this purpose radiographs from 8 patients who underwent sinus lift operation were re-evaluated in our specialist dental centre.

Materials & Methods

In this study, a relatively small sample population of 8 patients was considered (2 males and 6 females), with an average age of 35 years, ranging between 26 and 44 years. Nine sinuses were operated on (sinus lift). All patients were candidates for dental implant-supported restorations placement - they were in good...
health, all of them were partially edentulous (patients for whom we planned to extract teeth during surgery were considered as partially edentulous in this study) and all surgeries were performed by the same surgeon.

Results

It appears that antral septa are more commonly found in edentulous atrophic maxillae than in dentate ones, in the posterior portion of the maxillae than in the anterior portion and in the left side rather than the right side of the maxillae. A CT scan is the radiographic method of first choice for detecting the presence of septa, while panoramic radiography was found to be less sensitive and sometimes misleading in detecting sinus septa. Precise knowledge of patient’s maxillary sinus anatomy allows for exact planning of surgery and helps to avoid unexpected complications.

Lasers have been used in oral surgeries for many years with great success. In this research (in which a diode laser 980 nm was used), 10 patients participated, each of whom had been treated with dental implants more than three months ago, with a conventional first surgical stage.

All the implants were uncovered successfully with laser aid. For each implant the procedure was completed in less than 10 minutes. All patients reported very minimal postoperative discomfort or very slight pain at the one-week recall appointment. A fixture level impression was taken at that recall appointment.

According to the results of this research, soft tissue laser should be considered as an effective alternative technique for implant uncovering in the second surgical stage.

Implant therapy has become the standard of care for edentulous areas of the oral cavity. Following tooth extraction, there is often an inadequate amount of bone in which to place dental implants. In such cases, a ridge augmentation procedure is performed prior to implant placement. Ridge augmentation techniques to correct these defects include guided bone regeneration (GBR) utilizing a barrier membrane, bone graft alone or bone graft with a membrane.

In elderly patients bone grafting may cause another injury in the donor site which may take days or even months to heal. This is often unacceptable to many patients. We propose here a new technique which is less traumatic and hence more acceptable to the patients.

Bone marrow contains osteoblast progenitor cells which appear to arise from a population of pluripotential connective-tissue stem cells, which can be obtained with aspiration. When cultured in vitro under conditions that promote an osteoblastic phenotype, osteoblast progenitor cells proliferate to form colonies of cells that express alkaline phosphatase and, subsequently, a mature osteoblastic phenotype. These cells will produce new bone at the ridge which may give an implantologist adequate bone width at the ridge where an implant should be inserted.
The goal of modern dentistry is to restore the patient to normal health by restoring the contour, function and esthetics. As a result of continued research and improvement in diagnostic tools and treatment techniques, predictable success is now a reality for the rehabilitation of many challenging clinical situations. In recent years, dentistry has become greatly influenced by aesthetic considerations. The primary reason for this is patients’ demands for natural appearing restorations. This has resulted in a massive development in the field of dental implantology over the past 30 years. A new implant abutment made of fiberglass was introduced recently. This new implant abutment option is cost- and time-effective and it meets the patients’ expectations in relation to function and esthetics as the implant closely resembles the natural tooth color. This presentation aims at evaluating the effectiveness of fiberglass dental implants in relation to function and esthetics.

With this Two Stage Mandibular Ridge Split technique the location of the greenstick fracture is predetermined away from the midfacial crestal area, and the perfusion of the buccal segment remains attached and intact. The buccal cortical segment remains a pediculated graft after ridge splitting and thus the practical benefit is no bone loss crestally.
The International Team for Implantology (ITI), a leading academic organization dedicated to the promotion of evidence-based education and research in the field of implant dentistry, welcomed more than 4,000 participants from all over the world to the 2010 edition of its much anticipated ITI World Symposium. The city of Geneva, Switzerland, provided a picturesque backdrop to a full program of topical presentations and debate.

With his keynote address, world-renowned adventurer and scientist Bertrand Piccard set the tone for the three-day event that explored new and emerging territory in implant dentistry. The collective knowledge represented by the faculty of 113 experts from 26 countries provided a springboard for lively debate and discussion that continued beyond the official program. The scientific program was divided into three main facets of treatment: New clinical methods for diagnosis and treatment planning; New and proven treatment procedures; Complications in implant dentistry or dealing with reality. The smooth delivery and breadth of information provided over the three days served to underline the truth of the ITI’s claim of “30 years of leadership and credibility.”

For the first time, the main program was complemented by a pre-symposium program of two parallel full-day courses that allowed participants the luxury of total immersion in two narrowly defined areas of treatment. The highly popular Limited Attendance Sessions were also expanded from three to four compact lectures per session. “The ITI is fortunate that it can call on such a wide variety of opinion leaders in implant dentistry on an international basis to share their knowledge,” said Stephen Chen, Chairman of the Scientific Program Committee. “This pool of expertise is the foundation for the success of the event and reinforces its well deserved reputation as the most prestigious academic event in the implant dentistry calendar.”

“Every effort was made to ensure the smooth running of the event and give participants the best possible Symposium experience,” commented Friedrich Buck, Executive Director of the ITI. “We also took the decision to hold an industry exhibition that drew 38 exhibitors from Europe as well as the USA, giving participants the opportunity to review some of the latest developments in the field and discuss their needs directly with manufacturers.”

Rounding off the event was the Research award which attracted a great deal of interest. Competition for the nine presentation slots was fierce and the total of 118 posters testified to the central role played by research among the ITI membership as well as their readiness to share results.

The success of the ITI World Symposium is undisputed, it can be measured not only in terms of attendance figures, but also the accessibility of the event which provided simultaneous translation in 12 languages for the main program. The next ITI World Symposium will take place in 2014.
“It was a congress of superlatives.” 2,500 participants from more than 60 countries met in Barcelona on March 19–20, 2010. More than 100 internationally known lecturers presented the latest scientific insights to an attentive audience and described how they could be successfully integrated into practice. Professor Lim Kwong Cheung of Hong Kong, Dr Henry Salama from the USA and Professor Heiner Weber from Germany were the scientific chairmen of the congress.

“We offer not only implants but also dental solutions from root to crown.” With these words Dr Werner Groll, managing director of DENTSPLY Friadent, defined the slogan of the congress: “Focus on your Practice Success.” The company’s partnership with users is based on three pillars. The products and processes of the DENTSPLY Friadent company for implantology and bone augmentation are proven in clinical applications throughout the world. Future-oriented and innovative technology is aligned to the requirements of the practitioner and the desires of the patient. Finally, easy-to-implement marketing concepts are available for systematic development of the dental practice under the stepps brand. DENTSPLY Friadent has based its growth on these three pillars to become number three in the world implant market, as described by Dr Groll at the press conference.

The wide and varied range of topics covering all aspects of modern implant-supported therapy was clearly structured, allowing attendees to concentrate intensively on topics of interest to them and leave the congress thoroughly informed. While the lectures in the “Proven Applications and New Approaches” forum were primarily practice oriented, the “Today’s Progress for Tomorrow’s Practice” forum focused on procedural techniques, study results relevant to dental practice and new materials and technologies. The focus on interdisciplinary therapy techniques with...