15th Annual Scientific Meeting
October 5-7, 2006
Chairman
Christoph HÄMMERLE
Dear Colleagues,
On behalf of the European Association for Osseointegration, the Swiss Societies of Implantology and for Reconstructive Dentistry we are delighted to welcome you to the EAO’s 15th Annual Scientific Congress in Zurich.

As the president of the organizing committee I extend my gratitude to the EAO board and to the scientific program committee for their invaluable efforts during the long lasting preparation for this meeting.

The scientific program ensures an exciting three days with world-renowned speakers presenting recent advances on highly relevant topics in implant dentistry. Over 300 abstracts from researchers all around the world underscore the increasing importance the EAO congresses have for the transfer of science. The abstracts will be presented either during the research competition, or displayed as posters, or for the first time made available in the form of e-posters.

Furthermore, the EAO board is proud to present the report of the first EAO Consensus Conference, which was held in Pfäffikon, Switzerland in February 2006. The consensus report is available to all congress participants as a supplement to Clinical Oral Implants Research, the official publication of the EAO.

Finally, it is my special pleasure and honor to welcome you to beautiful Zurich, a city which regularly ranks among the most livable cities in the world. The congress center is located by the lake in the heart of Zurich close to its world famous “Bahnhofstrasse”. I hope you will feel at ease and enjoy some of the city’s many attractions.

I am looking forward to meeting you at the 15th Annual Scientific Congress of the EAO.

Christoph HÄMMERLE
Chairman, EAO Zurich 2006 Meeting
### Synopsis

#### EAO Board Members (2005-2006)
- **President**: Franck RENOUARD, France
- **President-Elect**: Friedrich NEUKAM, Germany
- **Secretary General**: Christoph HÄMMERLE, Switzerland
- **Treasurer**: Marc QUIRYNEN, Belgium
- **Past President**: Georg WATZEK, Austria
- **Ordinary Member**: Paul STONE, UK

#### Scientific Programme Committee
- Carlos APARICIO, Spain
- Urs BELSER, Switzerland
- Ueli GRUNDER, Switzerland
- Christoph HÄMMERLE, Switzerland
- Regina MERICSKE, Switzerland
- Konrad MEYENBERG, Switzerland
- Franck RENOUARD, France
- Georg WATZEK, Austria

#### EAO 2006 Council
- Daniel van STEENBERGHE, Belgium
  - Chairman
- Wolfgang BOLZ, Germany
- Niklaus P. LANG, Switzerland
- David HARRIS, Ireland
- Massimo SIMION, Italy

#### Research Award Committee
- Carlos APARICIO, Spain
- Jens FISCHER, Switzerland
- William GIANNIBILE, USA
- Niklaus P. LANG, Switzerland
- Regina MERICSKE, Switzerland
- Bjarni PJETURSSON, Switzerland
- Marc QUIRYNEN, Belgium
- Franck RENOUARD, France
- Lars SENNERBY, Sweden
- Dietmar WENG, Germany

#### Local Organising Committee
- Jens FISCHER, Zurich, Switzerland
- Ronald JUNG, Zurich, Switzerland
- Irena SAILER, Zurich, Switzerland
- Samantha MERKI, Zurich, Switzerland

#### Thematic Sessions

**Thursday, October 5**
- PLenary Session 1: Patient management, treatment planning: scientific and clinical evidence
- Innovations Session: Advanced bone augmentation procedures
- OPENING CEREMONY

**Friday, October 6**
- PLenary Session 2: Soft tissue integration of implants
- CLINical Advances 1: Navigation and implantation guides
- EAO General Assembly
- Founding Gold Sponsors Symposia
- PLenary Session 3: Prosthetic timing regarding implants in partially edentulous patients
- Research Competition

**Saturday, October 7**
- PLenary Session 4: Biomechanics of oral implants
- CLINical Advances 2: Maintenance of implant patients
- Founding Gold Sponsors Symposia
- PLenary Session 5: Clinical and technical aspects of implant reconstructions
- EAO RESEARCH PRIZE & POSTER AWARD

**Courses**

**Founding Gold Sponsors Symposia**

**INNOVATIONS SESSION**
- Advanced bone augmentation procedures

**PLENARY SESSION 3**
- Prosthetic timing regarding implants in partially edentulous patients

**PLENARY SESSION 4**
- Biomechanics of oral implants

**PLENARY SESSION 5**
- Clinical and technical aspects of implant reconstructions

**OPENING CEREMONY**

**PLENARY SESSION 1**
- Patient management, treatment planning: scientific and clinical evidence
Plenary Session 1

14:30 - 18:00

PATIENT MANAGEMENT, TREATMENT PLANNING:
SCIENTIFIC AND CLINICAL EVIDENCE
Chairpersons: Ueli GRUNDER, Switzerland
Karl-Ludwig ACKERMANN, Germany

14:30
Introduction by Ueli GRUNDER, Switzerland

14:30
- Different concepts for treatment planning and patient management
  Niklaus P. LANG, Switzerland

15:00
- The prosthetic value of teeth and implants: one complex case
  Peter MOY, USA

15:30
- The prosthetic value of teeth and implants: 2 esthetic cases
  Rino BURKHARDT, Switzerland

16:00 - 16:30
Coffee-break

16:30
- Periodontal therapy versus replacement by implants
  Alberto FONZAR, Italy

17:00
- Success and failure of tooth and implant borne reconstructions: systematic reviews
  Bjarni PJETURSSON, Switzerland

17:30
DISCUSSION
Karl-Ludwig ACKERMANN, Germany
Ueli GRUNDER, Switzerland
> Innovations Session

**ADVANCED BONE AUGMENTATION PROCEDURES**

Chairpersons: Ronald E. JUNG, Switzerland  
Friedrich W. NEUKAM, Germany

**Introduction**  
Ronald E. JUNG, Switzerland

14:30
- Novel approaches to alveolar bone engineering  
  William V. GIANNobile, USA

15:00
- Carriers to deliver bone wound modulating molecules  
  Jeffrey O. HOLLINGER, USA

15:30
- Timing of implant placement and membrane type in healing of bony defects around implants  
  Carlos NEMCOVSKY, Israel

16:00
- Vertical distraction osteogenesis for dental implants in severe alveolar defect cases: problems and strategies  
  Ye LIN, China

16:30 - 17:00  
Coffee-break

17:00
- Treatment of the extremely resorbed mandible  
  Ruben ROSENBERG, Chile

17:30  
**DISCUSSION**  
Friedrich W. NEUKAM, Germany  
Ronald E. JUNG, Switzerland
SOFT TISSUE INTEGRATION OF IMPLANTS

Chairpersons: Georg WATZEK, Austria
              Paul STONE, UK

Introduction
Georg WATZEK, Austria

09:00
- The effects of the microdesign of the implant neck on
  tissue integration and stability
  Eric ROMPEN, Belgium

09:30
- The importance of the macrodesign of the implant
  neck for peri-implant tissue stability
  Dietmar WENG, Germany

10:00 - 10:30
Coffee-break

10:30
- Effects of different materials and joint configurations
  on peri-implant soft tissue reactions
  Thomas OATES, USA

11:00
DISCUSSION
Paul STONE, UK
Georg WATZEK, Austria

11:45 - 12:45

EAO GENERAL ASSEMBLY
Clinical Advances 1

09:00 - 11:30

GARTENSAAL

NAVIGATION AND IMPLANTATION GUIDES
Chairpersons: Daniel BUSER, Switzerland
Irena SAILER, Switzerland

09:00

Introduction
Daniel BUSER, Switzerland

09:00

Advantages and disadvantages of navigation and implantation guides
Pascal MARQUARDT, Germany

09:20

Navigated implant placement
Timo KRÜGER, Germany

09:40

Implant locating and placement based on tactile registration
Haim TAL, Israel

10:00

Immediate reconstruction applying prefabricated stents
Ingvar ERICSSON, Sweden

10:20 - 10:50

Coffee-break

10:50

Computer guided implantology: how far can we go today?
Philippe TARDIEU, France

11:10

DISCUSSION
Irena SAILER, Switzerland
Daniel BUSER, Switzerland

11:45 - 12:45

EAO GENERAL ASSEMBLY
Plenary Session 3

PROSTHETIC TIMING REGARDING IMPLANTS IN PARTIALLY EDENTULOUS PATIENTS
Chairpersons: Regina MERICSKE, Switzerland
              Paulo MALO, Portugal

Introduction
Regina MERICSKE, Switzerland

14:30
- Clinical requirements regarding reconstruction on dental implants
  Jörg STRUB, Germany

15:00
- Immediate or late reconstructions in non-esthetic sites: clinical protocols in simple and complex cases
  Tiziano TESTORI, Italy

15:30
- Immediate or late reconstructions in partially edentulous patients: effects regarding hard tissue aspects
  Paolo TRISI, Italy

16:00 - 16:30
Coffee-break

16:30
- Reconstruction on implants placed in flapless procedures: success rates regarding soft and hard tissue aspects
  Robert HAAS, Austria

17:00
- Clinical practice and dental technical laboratory management of different loading protocols
  Christopher EVANS, Australia

17:30
DISCUSSION
Paulo MALO, Portugal
Regina MERICSKE, Switzerland
Research Competition

The numbers listed below refer to the Clinical Oral Implants Research Volume 17 – Issue n° 4 – 2006

14:30 - 18:00

Chairpersons: Jens FISCHER, Switzerland
William GIANNOBILE, USA
Niklaus P. LANG, Switzerland
Lars SENNERBY, Sweden

14:30 37 Bone regeneration in buccal-dehiscence defects at chemically modified titanium implants
(Düsseldorf, Basel, Germany, Switzerland)

14:50 38 Implants coated with components of the extracellular matrix
B. Stadlinger*, E. Pilling, M. Huhle, R. Mai, S. Bierbaum,
(Dresden, Germany)

15:10 39 Biphasic electrical stimulation for early osseointegration
S. J. Hwang*, J. Song, T. Cho, Y. Song, S. Lee, D. Kim, I. Kim, S. Kim
(Seoul, Republic of Korea)

15:30 - 16:00 Coffee-break

16:00 40 Analysis of fibroblasts onto zirconia and titanium surfaces
F. Gonçalves*, E. Takamori, A. Zanetti, R. Zanetti, J. Granjeiro
(São Paulo, Baurú, Rio de Janeiro, Brazil)

16:20 41 Perforations over cross-linked and non cross-linked collagen barriers in GBR procedures
(Tel Aviv, Israel)

16:40 42 Titanium allergy in dental implant patients
A. Sicilia, S. Cuesta*, G. Coma, I. Arregui, C. Guisasola, E. Ruiz
(Oviedo, Spain)

17:00 43 Enhanced implant stability with a chemically modified SLA surface
T. Oates*, P. Valderrama, M. Bischof, R. Nedir, A. Jones, J. Simpson,
D. Cochran (San Antonio, USA)

17:20 44 Immediate maxillary tooth replacement: a 2-year comparative study
D. Dedi*, W. Duarte (Chapel Hill, USA)
Plenary Session 4

09:00 - 12:30

BIOMECHANICS OF ORAL IMPLANTS
Chairpersons: Jörg STRUB, Germany
Carlos APARICIO, Spain

Introduction
Jörg STRUB, Germany

09:00
- Long versus short implants: theoretical considerations
  David NISAND, France

09:30
- The scientific long-term basis on implant length and number
  Helmut STEVELING, Germany

10:00
- Long versus short implants: new horizons
  Paul FUGAZZOTTO, USA

10:30 - 11:00

Coffee-break

11:00
- Optimal number and distribution of implants
  Franck RENOUARD, France

11:30
- Scientific basis and clinical value of stability measurements of dental implants
  Lars SENNERBY, Sweden

12:00

DISCUSSION
Carlos APARICIO, Spain
Jörg STRUB, Germany

12:30 - 12:45

> EAO Research Prize Awarded by Lars SENNERBY, Sweden

> Poster Award Awarded by Franck RENOUARD, France
Clinical Advances 2

09:00 - 12:30

MAINTENANCE OF IMPLANT PATIENTS
Chairpersons: Jean-Louis GIOVANNOLI, France
Søren SCHOU, Denmark

Introduction
Jean-Louis GIOVANNOLI, France

09:00
- 25 years of experience: success and frustrations
Patrick HENRY, Australia

09:30
- Long-term maintenance efforts to prevent and treat technical failures
Klaus GOTFREDSEN, Denmark

10:00 - 10:30
Coffee-break

10:30
- Implant therapy in periodontal susceptible patients
Gil ALCOFORADO, Portugal

11:00
- Treatment of peri-implantitis lesions
Stefan RENVERT, Sweden

11:30
- Assessment of various established implant treatment concepts - the economical aspect
Werner ZECHNER, Austria

12:00
DISCUSSION
Søren SCHOU, Denmark
Jean-Louis GIOVANNOLI, France
Plenary Session 5

14:15 - 16:15

CLINICAL AND TECHNICAL ASPECTS OF IMPLANT RECONSTRUCTIONS
Chairpersons: Konrad MEYENBERG, Switzerland
              Wolfgang BOLZ, Germany

Introduction
Konrad MEYENBERG, Switzerland

14:15
- Implant-abutment connections: effects on clinical and laboratory procedures resulting from various systems
  Siegbert WITKOWSKI, Germany

14:45
- Ceramic versus titanium abutments: clinical and laboratory technical consideration
  Walter GEBHARD, Switzerland

15:15
- Ideal implant positioning for best reconstruction: limitations imposed by non-ideal positioning
  Frédéric CHICHE, France

15:45
DISCUSSION
Wolfgang BOLZ, Germany
Konrad MEYENBERG, Switzerland
Information on the Association

Vision
Bridging the gap between science and clinical practice, EAO improves the quality of patient care as the leading voice and resource centre in the field of implant dentistry in Europe.

History
The EAO was founded in Munich in 1991 following on the recommendations made by an international group of clinicians and research workers. It was formed as an international, interdisciplinary and independent science based forum for all professionals interested in the art and science of osseointegration.

Mission
The objectives of the Association are:

1. To promote and facilitate clinical applications of osseointegration for the benefit of patients throughout the world.
2. To promote the advancement of methods of treatment in reconstructive surgery and prosthetic rehabilitation based on the principles of osseointegration and related disciplines.
3. To promote and initiate research into improved clinical procedures for rehabilitation as a consequence of osseointegration.
4. To promote international exchange of knowledge and understanding of the techniques and research in the field of osseointegration and related disciplines.
5. To promote the publication of research findings and other materials as part of continuing education for the benefit of members and interested organisations.

Membership
As a member you will benefit from a substantially reduced registration fee to the Annual Congress and receive free subscription to the bi-monthly Blackwell-Munksgaard journal Clinical Oral Implants Research (6 issues per year) in addition to a membership directory containing the names and addresses of all members, and a personal EAO pin. You will also enjoy the benefits of networking with colleagues and leading innovators from around the world.

For more information on membership, please contact:
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Tel +32 (0) 2 643 20 49
Fax +32 (0) 2 645 26 71
eao@agshq.com
www.eao.org
A Good Morning with Astra Tech!
Moderator: Sverker TORESSKOG, Sweden
- The importance of serious documentation and liability issues regarding implant treatment
  Tomas ALBREKTSSON, Sweden
- Implants – a choice for a lifetime?
  Klaus GOTFREDSEN, Denmark
- Advanced surgery, for whom?
  Karl-Erik KAHNBERG, Sweden
- The importance of maintenance and care for implant patients
  Niklaus P. LANG, Switzerland
- Facilitate™ – Computer Guided Surgery
  Dimosthenis MANTOKOUDIS, Switzerland

Surface enhancement through chemical modification – does it really work? – A seminar focused on surface innovation with an up-date on the latest pre-clinical and clinical results
Moderator: Anders HOLMEN, Sweden
- New data on fluoride modified implant surfaces shed light to the mechanism of action of the improved bone response
  Jan-Eirik ELLINGSEN, Norway
- Osseoprotection: Clinical Lessons Learned from Use of Flouridated Dental Implant System
  Clark STANFORD, USA

Beauty and Speed From backwards planning to straightforward treatment
Innovative treatment concepts in fixed and removable implant prosthetics
Moderator: Eduard Eisenmann, Germany
- Perfect choice - my way to optimal treatment results in various indications
  Jacob ZAFRAN, Switzerland
- Perfect fit - Easy and high speed manufacturing of a micromovement-free removable denture - the SynCone® concept
  Paul WEIGL, Germany
- Perfect Solutions: Timing of Clinical Challenges
  Ashok SETHI, UK

Where Are the Opportunities in Continuing to Evolve Innovation in Implant Dentistry?
• Soft and Hard Tissue Management
• Simplicity Through Customized Restorations
• Broader Applications Through Accelerated Bone Bonding
Questions to be debated include:
- Can we ensure aesthetic outcomes?
- Can we give patients affordable, personalized restorations?
- Can we treat complex procedures with more confidence?
Moderator & Overview
  Richard LAZZARA, USA
Immediate Provisionalization for the Management of Anterior Aesthetics
  Roberto COCCHETTO, Italy
New Prosthetic Technology for Simplified, Cost Effective and More Predictable Implant Treatment Planning
  George PRIEST, USA
Surface Treatments for Accelerated and Enhanced Osseointegration
  John DAVIES, Canada
Discussion Panel
Symposia

**COURSE**
**KONGRESSSAAL**
Thursday, 5  10:00-13:00

Beautiful Teeth Now / Reconstruct the original
Live patient treatment, audience interaction and expert panel discussion around three clinical scenarios
Moderator: Bernard TOUATI, France

- Missing one tooth
  - Live: Esthetic reconstruction in the anterior maxilla
  - Stefan PAUL, Switzerland
  - Presentation: Minimal...
  - Bernard TOUATI, France
  - Treatment choice of the audience
  - Treatment alternatives from the expert panel

- Missing several teeth
  - Presentation: ...
  - Sonia LEZIY, Canada
  - Easy aesthetic in combination with strength and perfect fit for partial edentulous patient
  - Peter WÖHRLE, USA
  - Treatment choice of the audience
  - Treatment alternatives from the expert panel

- Missing all teeth
  - Live: Final esthetic reconstruction after implant treatment
  - Hadi ANTOUN, France
  - Presentation: Treatment alternative based on patient’s desire and indication
  - Steve PAREL, USA
  - Treatment choice of the audience
  - Treatment alternatives from the expert panel

**COURSE**
**TONHALLE**
Thursday, 5  10:00-13:00

Evidence-based innovations in your daily practice

- Does faster osseointegration have relevance today?
  - Jürgen BECKER, Germany

- Make a difference in your most challenging cases
  - Stephen BARTER, UK

- Individualised implant prosthetics with Straumann® CARES
  - Axel ZÖLLNER, Germany

- Q & A / Discussion

**SYMPOSIUM**
**PANORAMASAAL**
Friday, 6  13:15-14:15

Low bone quality and insufficient bone – still an issue for implantology or already history?

- Introduction
  - Daniel BUSER, Switzerland

- Bone regeneration – development of new solutions for the clinic
  - Ronald JUNG, Switzerland

- Implant failures in posterior maxilla
  - Mario ROCCUZZO, Italy

**Course**
**KONGRESSSAAL**
Saturday, 7  13:15-14:15

Ceramic success with the new Procera® technology
See the beautiful results of using Procera® on teeth and implants
Bernard TOUATI, France
Visit of the Jury to the poster areas: Friday, October 6, from 15:30 to 16:00

57 Fibronectin regulates osteoprogenitor cells migration and bone formation around implants

58 Primary loading of palatal implants for orthodontic anchorage – experimental results

59 Nanothickness Bioceramic Coatings on Rough Surfaces. Bone Healing Dynamics Effects
Coelho P.*, Bottino Mc, Freire N, Lemons J (New York, Birmingham, Florianopolis, USA, Brazil)

60 Piezo-electric osteotomies: Potential risk of damage to the inner ear?
Kramer Fj.*, Bornitz M, Zahnert T, Schliephake H (Goettingen, Dresden, Germany)

61 Statin-beta TCP graft promotes osteogenesis in rat bone defect
Ayukawa Y.*, Yasukawa E, Tsukiyama Y, Ogino Y, Atsuta I, Koyano K (Fukuoka, Japan)

62 Increased bone formation to nanocrystalline HA coated titanium implants

63 Immediate loading of single SLA implants: osteotomes versus drilling
Stavropoulos A.*, Nyengaard Jr, Lang Np, Karring T (Aarhus, Bern, Denmark, Switzerland)

64 DNA microarray analysis of the osseointegration potential of hydroxyapatite coating
Mamalis A.*, Silvestros S, Chatzidakis I, Tsangaris G (Athens, Greece)

65 Effect of the low pulse laser to the primary healing of titanium implant in the animal model
Kim Yd.*, Kim Uk, Shin Sh, Kim Jr, Chung Ik, Lee Jy, Jeong Cm (Pusan, Republic Of Korea)

66 Titanium surface modified by anodic spark deposition for dental implants

67 Histological and histo-metrical evaluation of spherical and granular forms of new Biogran II in bone regeneration around implants
Veis A.*, Derbarkis N, Parisis A, Tsiridis T, Karanikola G, Printza V (Thessaloniki, Greece)
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<td>Mechanical and debris evaluation of peri-implant bone after immediate loading</td>
<td>Neugebauer J.*, Weinländer M., padijer Gostovic A, Lekovic V, Zöller Je (Köln, Vienna, Belgrade, Germany, Austria, Serbia and Montenegro)</td>
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<td>Evaluation of bone-implant contact in implants loaded in different time-frames in the mandible of mini-pigs</td>
<td>Pieri F.*, Corenaldesi G, Marchetti C, Iezzi G, Degidi M, Piazzettili A (Chieti, Bologna, Italy)</td>
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<td>71</td>
<td>Adsorption of osteogenic cells to natural bone mineral under rotation</td>
<td>Cei S, Rameis M, Watzek G, Gruber R.* (Pisa, Vienna, Italy, Austria)</td>
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<td>Device for sinus lift and case report</td>
<td>Kitamura A.* (Nagasaki, Japan)</td>
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<td>Using a Mini Balloon for Sinus Lifting</td>
<td>Cardoso R.* (São Paulo, Brazil)</td>
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<td>The clinical application of injectable tissue-engineered bone</td>
<td>Yamada Y.*, Hibi H, Yajima A, Ito K, Kohgo T, Baba S, Ueda M (Nagoya, Kobe, Japan)</td>
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<td>Immediate Loading in Cross Arch Restorations of Heavy Smokers. A pilot study</td>
<td>Romanos G.*, Nentwig Gh (New York, Frankfurt, USA, Germany)</td>
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<td>Quantitative fractal analysis of distracted callus after alveolar distraction osteogenesis</td>
<td>Kim Sm.*, Kwon Ky, Yi Yj, Lee Jh, Kim Mj (Gangneung, Seoul, Republic Of Korea)</td>
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<td>78</td>
<td>Three-dimensional distortion analysis of implant splinting overdenture bars</td>
<td>Codina L.*, Phillips K, Nicholls J, Daly C (Lleida, Seattle, Spain, USA)</td>
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<td>80</td>
<td>Vertical Ridge Augmentation with Deproteinized Bovine Bone Block and rhPDGF-BB</td>
<td>Rochietta I.*, Nevins M, Kim D, Fiorellini J, Simion M (Milan, Boston, Philadelphia, Italy, USA)</td>
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<td>Machined and anodized surface implants after mean functional loading for 33 months</td>
<td>Watzak G.*, Zechnier W, Busenlechner D, Arnhart C, Gruber R, Watzek G (Vienna, Austria)</td>
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<td>82</td>
<td>Replacement of teeth exhibiting periapical pathology by immediate implants</td>
<td>Siegenthaler D.*, Jung R, Holderegger C, Roos M, Hämmerle C (Zürich, Switzerland)</td>
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<td>83</td>
<td>Intaoperative transtomography for implant placement guidance in non invasive procedures</td>
<td>Bouquet F.* (Montpellier, France)</td>
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<td>Vertical ridge augmentation by e-PTFE membrane combined with 1:1 Auto- Xenograft</td>
<td>Fontana F.*, Rasperini G, Maiorana C, Simion M (Milano, Italy)</td>
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<td>Transmucosal implant placement vs an open approach: patient centred outcomes</td>
<td>Nkenke E.*, Fenner M, Neukam F (Erlangen, Germany)</td>
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<td>Marginal bone level and gingival esthetics - a prospective observational study</td>
<td>Nöiken R.*, Morbach T, Kunkel M, Wagner W (Lindau (B), Mainz, Germany)</td>
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<td>89</td>
<td>Resonance Frequency Analysis (RFA) during early healing</td>
<td>Huwiler M.*, Pjetursson B, Booshhardt D, Salvi G, Lang N (Berne, Switzerland)</td>
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<td>A clinical study of implant installation by maxillary sinus augmentation for last 3 years</td>
<td>Gu H.*, Kook M, R M, Park H, Hong S, Choi C, Ohk S, Oh H (Gwong-Ju, Republic Of Korea)</td>
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<td>91</td>
<td>A Model Study on Flapless Implant Positioning and Complications</td>
<td>Van De Velde T.* Gior F, De Bruyn H (Ghent, Leuven, Belgium)</td>
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<td>Bone grafting and dental implants: a long-term follow-up study</td>
<td>Stock V.*, Kramer Fj, Schliephake H (Goettingen, Germany)</td>
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<td>93</td>
<td>Multiple cemento-ossifying fibromas - A very rare diagnostic case report</td>
<td>Stergiou G.*, Zwahlen R, Grätz K (Zurich, Switzerland)</td>
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<td>New method for simultaneous immediate loading of both jaws</td>
<td>Biscaro L.*, Becattelli A, Poggio P (Adria ( Ro, Ferrara, Italy)</td>
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<td>Comparison of different perimplantitis treatment methods</td>
<td>Karapetian Ve.*, Neugebauer J, Clausnitzer E, Zöller J (Cologne, Germany)</td>
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<td>5-year experience with Ultra-Sonic Bone Surgery applied to sinus grafting</td>
<td>Blus C.*, Szmukler-Moncrier S, Salama M, Salama H (Torino, Paris, Atlanta, Italy, France, USA)</td>
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98 Early loading of Fixture MicrothreadTM OsseoSpeedTM. One year post-loading results Mellonig J.*, Stanford C, Wagner W (San Antonio, Iowa City, Mainz, USA, Germany)

99 Immediate function in edentulous maxilla implant rehabilitation: a one-year retrospective clinical study Tealdo T.*, Bevilacqua M, Pera P (Genoa, Italy)

100 Implant stability in the posterior mandible following an early loading protocol using the Microthread OsseoSpeed Fixture Mcglumphy E.*, Phillips K, Schliephake H, Wang Ic, Chacon G, Larsen P (Columbus, Seattle, Göttingen, USA, Germany)

101 Sandwich-plasty technique in severely resorbed posterior mandible: report of 10 cases Felice P.*, Pieri F, Corinaldesi G, Marchetti C (Bologna, Italy)

102 Alveolar ridge augmentation with titanium mesh: a clinical and histological study Corinaldesi G.*, Pieri F, Sapigni L, Marchetti C (Bologna, Italy)

103 Immediate loading of four or six implants on fully edentulous patient Artleau H, Belmon P, Cherfane P.*, Sitbon JM, Sarks R, Abduldayem A (Paris, Limoges, Beirut, France, Lebanon)

104 Cathepsin K levels in the crevicular fluid of dental implants Strbac Gd.*, Monov G, Cei S, Kandler B, Gruber R, Watzek G (Vienna, Pisa, Austria, Italy)

105 Full-Arch On Immediate Loading Implants For Totally Edentulous Mandible Rehabilitation Perrotti V, Degidi M, Piattelli A.*, Carlini F (Chieti, Bologna, Ferrara, Italy)

106 Periimplant bone level around implants with integrated platform switch Ficki S.*, Bolz W, Zuhr O, Wachtel H, Hürzeler M (Munich, Germany)


108 Early loading and bone training of Ankylos-implants: first results Hess P.*, Trimpou G, Nentwig Gh (Frankfurt, Germany)

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## Faculty

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<td>BURKHARDT Rino</td>
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<td>CHICHE Frédéric</td>
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### CHAIRPERSONS

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### RESEARCH COMPETITION PRESENTERS

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### FOUNDING GOLD SPONSORS FACULTY

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Invited Speakers

Rino BURKHARDT

Curriculum Vitae

Rino Burkhardt maintains his private practice, limited to periodontology and implantology, in Zurich. Additionally he acts as a clinical instructor in the department of Periodontology, at the University of Berne.

His publications, lectures and courses contain selected topics out of his specialty. These include hard and soft tissue management within the scope of implant restorations, esthetic aspects from the view of the periodontist, and the relations between the prosthetic reconstruction and the periodontal tissues.

He is an active member of the Swiss Society of Periodontology (SSP), the Swiss Society of Implantology (SGI), the European Association of Osseointegration (EAO) and the European Academy of Esthetic Dentistry (EAED).

The prosthetic value of teeth and implants: 2 esthetic cases

In the last decades the prophylaxis efforts have increased the tooth consciousness of our patients, resulting in higher demands concerning the esthetic treatment outcome. While more and more clinical procedures are documented in the literature concerning the biological and functional results, only few data exist about the esthetic ones. It is the aim of this lecture to evaluate the prosthetic value of implants and teeth by the available scientific evidence of different treatment procedures and to compare the corresponding esthetic results on the basis of the clinical experience.

Gil ALCOFORADO

Curriculum Vitae

Graduated in Dentistry in 1980 – University of Lisbon
Specialty in Periodontology – University of Bergen, Norway - 1983
Visiting Researcher at the U. of Pennsylvania with Profs. Jorgen Slots, Sture Nyman and Max Listgarten – 1986 (Full time)
Visiting Professor at the University of Michigan in Ann Arbor – 1989/1990 (Full Time)
Ph.D. in Periodontology at the University of Lisbon – 1995
Visiting Professor at the U. of Southern California – 2000 - Today
Chairman and Full Professor, Departs of Periodontology and Oral Biology and Physiology
Vice-Dean Lisbon Dental School, University of Lisbon – 2000 - 2004
Founder and President of the Portuguese Periodontal Society
Past-President of the European Federation of Periodontology
Fellow of the International College of Dentists and Pierre Fauchard Academy
Private Practice limited to Periodontology and Surgical part of implant rehabilitation
Fellow of the International Team for Implantology, Chairman of the Portuguese Section for ITI Education

Implant Therapy in Periodontal Susceptible Patients

Since the establishment of the concept of osseointegration the use of endosseous implants has not stopped growing. Since the time when implants were strictly used for fixed rehabilitation of edentulous mandibles, the indications have not stopped expanding but so have the risks. For some years, implants have been used to substitute missing teeth of partially edentulous individuals. For a long time it has been suspected that periodontal conditions of patients could negatively influence the health of the perimplant tissues. The first scientific data that was published many years ago showed clearly that inflammation of periodontal tissues could have a negative impact on implants residing in the same oral cavity. However, the research which existed for periodontal tissues could not always be extrapolated to the perimplant tissues. Only very recently, have well controlled studies been published that show what the possibilities are to rehabilitate the periodontal patient with endosseous implants, controlling the possibility of infection of the latter.

While discussing the rationale for treating periodontal disease with the eradication of periodontal pathogens in mind, protocols shall be proposed to treat these patients minimizing the risk for further infections.
Attaining the optimal morphology is the goal of functional and aesthetic implant restorations. Every effort should be made to attain a prosthetic crown that has proper intrinsic proportions as well as proportions consistent with the adjacent dentition. The first stage of the treatment is the restoration of an optimal bone volume in order to use the implant most appropriate in length and diameter that satisfied the functional requirements. From an esthetic point of view, it allows to place the implant ideally according to several criteria precisely defined in the tri-dimensional space (Parel S and Sullivan D, Esthetics and Osseointegration, OSI, 1989).

The lectures will mainly address the biological evidence for implant dentistry. In other words, the following topics will be brought up for discussion together with its scientific documentations:
1. “2-stage vs 1-stage Surgical Procedures”,
2. Benefits of using “TiUnite surface”, as well as
3. “Delayed, Early and Immediate Loading of Implants”, and finally
4. “the Nobel Guide Concept ("Teeth-in-an-Hour") will be demonstrated.

Dr. Frédéric Chiche graduated in 1979 from Paris VII School of Dentistry, where he also retains a clinical assistant appointment in the department of Implantology. He is in full-time practice in Implantology in Paris and lectures nationally and internationally on Surgical and Prosthetic aspects of Implant Dentistry. He is the past President of the French Society of Esthetic Dentistry.

Dr. Ingvar Ericsson

Obtained his DDS degree in 1966; Specialist License in Periodontology 1977, in Prosthetic Dentistry 1990, Odont. Dr. degree (PhD) 1978 at the Faculty of Odontology, Göteborg University. He was working at the Department of Periodontology in Göteborg 1973-1994, and as professor at the Prosthodontic Department, Malmö University 1994-2003. In addition, he is working as a private practitioner in Göteborg since 1967 and as a consultant at Nobel Biocare since 1993. Dr. Ericsson has published around 100 original articles, 25 review articles and several chapters in textbooks. Dr. Ericsson has been an invited speaker at about 200 scientific meetings as well as presenter of courses all around the world. Professor Ericsson has since 1982 a vast experience of Brånemark System both from a surgical and prosthetic point of view. He has been one of the clinical developers of the Nobel Guide "Teeth-in-an-Hour"-concept together with the group around Dr. Matts Andersson at Nobel Biocare.
Clinical practice and dental technical laboratory management regarding different loading protocols

Close liaison between the dental practice and the dental laboratory is an essential requirement for successful implant restorative treatment. Different schemes for loading of implants have increased the need for dental practices and laboratories to modify the strategies for organizing work between them. On the one hand, in the traditional way, when implants are loaded following many weeks of tissue integration, the pathway to treat is well established. On the other hand, when earlier or immediate loading is chosen, the treatment sequence, length and number of appointment times, fabrication of provisional restorations and other logistical factors need to be varied. Thus the communication between the laboratory and clinic, as well as the organization of the dental practice and the management of the patient need to be varied accordingly. This lecture will discuss the logistic and organizational steps required for different loading protocols.

Curriculum Vitae

Dr. Evans completed his Bachelor degree at the University of Queensland, Brisbane, Queensland, Australia and his Masters degree in prosthodontics at the University of Melbourne, Victoria, Australia. He is in full-time specialist prosthodontic practice in Brighton, Melbourne and has a branch practice in Albury, NSW. He is a consultant prosthodontist to the Royal Australian Navy and a Clinical Demonstrator for the Graduate Diploma in implant dentistry at the University of Melbourne.

Dr. Evans is a full member of the Australian and New Zealand Academy of Prosthodontists and is an ITI Fellow. He has lectured extensively at national and international meetings on implant related topics and restorative dentistry. He is a past president of the Australian Prosthodontic Society, Victorian Branch and Victorian Crown and Bridge Society and a committee member of the Australian Osseointegration Society, Victorian Branch.

Currently he is involved in clinical research on implant aesthetics and implant surface technology. He was awarded the “Best Prosthodontic Presentation” at the ITI World Symposium, Munich 2005 for his research presentation on implant aesthetics.

Periodontal therapy versus replacement by implants

In the last ten years, implant therapy has changed the patient’s treatment plan, at times in a radical manner. Saving extremely compromised teeth by using “traditional therapies” (endodontics, periodontics, prostheses, etc.) seems not only to have become more and more obsolete, but no longer justifiable from a cost-benefit ratio, or from expectations of success over the long term. In particular, the treatment of patients affected by severe periodontal disease seems to have been surpassed by an easier and more predictable treatment: extracting compromised teeth and replacing them with implants. But is this approach really better than the “old one”? And if so, is it better in all clinical situations? And which of these two approaches offers the best and most predictable aesthetic results? The aim of this lecture is to provide an answer to these by carefully analyzing the literature and presenting several clinical cases, in an attempt to evaluate the cost-benefit ratio not only from an economic, but also from a biological point of view.
Long versus short implants: new horizons

As our understanding of implant therapy has evolved, many once accepted postulates have been called into question. The need to place “longer” implants, and concerns regarding crown root ratio, represent such former absolute tenets of therapy. This presentation will briefly review the literature discussing crown root ratio and short implant use in implant therapy. A number of techniques will be presented which employ shorter implants in a variety of situations in native and regenerated bone. Short and long terms result of such therapy in function will be critically discussed. Finally, special circumstances where short implant use is not appropriate will be reviewed.

Ceramic versus titanium abutments: clinical and laboratory technical consideration.

In comparison to titanium or metal abutments, all-ceramic implant abutments are considered to be esthetically superior. In contrast to other high strength ceramics, the physical properties of zirconium oxide are very promising in regard to the technical requirements for an ideal implant abutment. Titanium, gold and zirconium oxide will be compared from the perspective of the dental technician including advanced techniques of abutment manufacturing, correct dimensions of thickness and shape and different ways to overcome the disadvantages of the intrinsic color characteristics.
Invited Speakers

William GIANNOBILE

Curriculum Vitae
Dr. William Giannobile is The Najjar Endowed Professor Dentistry and Biomedical Engineering and the Director of the Michigan Center for Oral Health Research at the University of Michigan School of Dentistry. He received his DDS and an MS in Oral Biology from the University of Missouri. He later received his certificate in Periodontology and Doctor of Medical Sciences in Oral Biology from Harvard University. He subsequently completed postdoctoral training in Molecular Biology at the Dana-Farber Cancer Institute and Harvard Medical School. Dr. Giannobile previously served as a faculty member at Harvard and the Forsyth Institute in Boston. He recently completed part of his sabbatical year as a Visiting Professor at the Biotechnology Institute of Regenerative Medicine at the University of Genova in Genova, Italy. Dr. Giannobile and published and lectured extensively in the fields of Regenerative Medicine and Tissue Engineering as it relates to periodontal and peri-implant reconstruction. Dr. Giannobile is an Associate Editor for the Journal of Periodontology and is on the editorial boards of the Journal of Clinical Periodontology, International Journal of Oral & Maxillofacial Implants and the International Journal of Periodontics & Restorative Dentistry. He also serves as a consultant to the American Dental Association Council of Scientific Affairs and the National Institutes of Health. Dr. Giannobile is a Diplomate of the American Board of Periodontology and in addition to his faculty appointment at Michigan, maintains a private practice limited to periodontics and implantology in Farmington Hills, Michigan.

Novel approaches to the alveolar bone engineering.

Repair of alveolar bone defects caused by periodontal and peri-implant tissue destruction is a major goal of oral reconstructive therapy. The field of tissue engineering combines advances in materials science and biology to repair tissues and organs. Bone tissue engineering has been achieved with limited success by the utilization of barrier membranes and block grafting techniques. Over the past decade investigators have begun to utilize signaling molecules such as growth factors to restore lost bone support due to damage to the alveolar process. This presentation will review emerging therapies in the areas of materials science, growth factor biology and cell/gene therapy. Results from preclinical and clinical trials will be reviewed. The presentation will conclude with a future perspective on the use of novel biomimetic approaches such as gene delivery of signaling molecules and biomimetic materials with the potential of accelerating dental implant osseointegration.

Klaus GOTFREDSEN

Curriculum Vitae
Presently, Dr. Gotfredsen is associate professor and head of the Department of Prosthetic Dentistry, Faculty of Health Sciences, University of Copenhagen. He graduated in Dentistry 1984 from the University of Aarhus, Denmark. Received a Danish Ph.D. degree in 1990 from University of Copenhagen, Denmark and obtained a Swedish Ph.D. degree at Department of Periodontology in 2001 from Göteborg University. Dr. Gotfredsen has been employed at Department of Prosthetic Dentistry as well as at Department of Oral & Maxillofacial Surgery in Copenhagen. He has mainly researched in clinical and experimental implant dentistry and has published more than 60 scientific papers in the field of implant dentistry. Dr. Gotfredsen has been in the board of European Association for Osseointegration for 5-years and was President for the organization in 1999. He is presently in the board of Scandinavian Society of Prosthetic Dentistry.

Long-term maintenance efforts to prevent and treat technical failures.

The literature in implant dentistry is presently concentrated on efforts to decrease healing times and obtain nice aesthetic results. Only very sparse information can be obtained, when long-term maintenance to prevent and treat technical failure is discussed, although these problems have great influence on cost-effectiveness for the patient and the dentist. Sometimes it may be quite difficult to make the correct diagnosis, when technical failures occur. The lecture will try to describe how we can make the diagnosis. Ceramic fractures and screw loosening are frequently reported in the literature, whereas superstructure and implant fractures are more seldom. The lecture will also propose, what we can do to prevent and treat such technical complications.
Reconstructions on implants placed in flapless procedures: success rates regarding soft and hard tissues

Considering only the function of implant treatment aiming to replace tooth gaps as well as total edentulous areas, the success rates have been proven to be excellent after 10 years and longer. Therefore the treatment focuses more and more on the aesthetic results. This demands to maintain or reconstruct peri-implant hard and soft tissue.

A retrospective and prospective study on single tooth implants in the maxillary anterior jaw by our team showed, that the peri-implant bone was stable, when functionally forces were provided. On the other hand implants that exhibited occlusal contacts solely in the centric were subject to pronounced peri-implant bone resorption. This proved to be statistically significant the younger the patients were.

I will present in a lecture based on the recently published pink aesthetic score guidelines about the division of gaps into different grades of treatment severity to preview the final aesthetic outcome with accuracy.

For optimal treatment results the following guidelines should be followed:
1. position of the implant in the sagittal as well as vertical plane
2. inter-implant relationship
3. existence of bone of the adjacent teeth up to the CEJ
4. maintenance or rebuilding of the so called aesthetic line.

If all these requirements are fulfilled when implants are set into fresh extraction sockets especially in flapless procedures, this treatment option has to be considered as the first choice.

Curriculum Vitae

Robert HAAS

Born 25.10.1959, Stockerau, Lower Austria
1978 starts Medical School
Instructor at the University Institute of Anatomy.
1983 Graduation M.D.
1983-1989 General Hospital, Mistelbach, Lower Austria,
Residency at Emergency Unit (Head Prim. Dr. H.J. Zinnecker)
1989 Graduation GP
1989/90 Clinic for orthopedic surgery, Maria Theresienstift, Speising, Vienna
1990 Fellowship at the University Clinic Vienna, emergency ward; beginning of training for oral and maxillofacial medicine.
1992 Graduation DDS with distinction
1992 Fellowship at the oral surgery unit of the oral and maxillofacial University Clinic, Vienna (head Univ. Prof. Dr. Georg Watzek).
1992 Opening of own private surgery
1993 Secretary of OÖGÖCI (society for oral Implantology)
1994 Research grant in Hamburg, Department oral Pathology (head Dr. Mult. K. Donath), University Clinic Eppendorf/Hamburg.
1998 PhD, oral and maxillofacial Medicine at the University Clinic, Vienna
1998 Senior Physician – oral surgery unit.
1999 Graduation Doctor med. Dent.
2000 Professorship
2003 Vicepresident of the Austrian Society for Oral Surgery and Implantology.
2004 Opening of the Implantacademy, Vienna.
2005 President of the Austrian Society for Oral Surgery and Implantology.
Presentations at several national and International Congresses.
Secretary at nat. and internat. Congresses.
Several awards for scientific research.
Participant on several training courses.
More than 60 scientific papers, contributions to medical books and publications.

25 years of experience; success and frustrations

The first patients treated in Australia for mandibular edentulism ad modum Brånemark received their bridgework 25 years ago. 5 years later protocols were developed to treat partially edentulous situations. Concepts were surgically driven and whilst functional results were excellent, esthetic outcome was compromised and clinically frustrating. Subsequently emphasis was placed on prosthetically driven outcomes. Since then advances in software and hardware have resulted in improved results based on the outcome of multicentre clinical trials. Recipient of the Distinguished Lecturer Awards from the Greater New York Academy of Dentistry 1998 and American College of Prosthodontics in 1999. Editorial board member of several dental journals, contributor to 7 textbooks and author or co-author of over 100 publications.

Curriculum Vitae

Patrick HENRY

Specialist practice prosthodontist, Perth Western Australia. In 1982 established the Perth Osseointegration Training Centre concerned with Research and Development of the Brånemark Implant System. Professorial and Research Fellowship appointments at several universities. Fellow of the Academy of Osseointegration. Current research interests include implant surface technology and the immune response, applications of immediate loading, and involvement in international collaborative prospective multicentre clinical trials. Recipient of the Distinguished Lecturer Awards from the Greater New York Academy of Dentistry 1998 and American College of Prosthodontics in 1999. Editorial board member of several dental journals, contributor to 7 textbooks and author or co-author of over 100 publications.

Reconstructions on implants placed in flapless procedures: success rates regarding soft and hard tissues

The first patients treated in Australia for mandibular edentulism ad modum Brånemark received their bridgework 25 years ago. 5 years later protocols were developed to treat partially edentulous situations. Concepts were surgically driven and whilst functional results were excellent, esthetic outcome was compromised and clinically frustrating. Subsequently emphasis was placed on prosthetically driven outcomes. Since then advances in software and hardware have resulted in improved results based on the outcome of multicentre clinical trials. Simultaneously, the demand for esthetic implant dentistry became coincidental with the application of pre-implant augmentation technologies. Contemporary practice is increasingly based on immediate function concepts with minimal invasiveness and maximal predictability.
Invited Speakers

> Jeffrey O. HOLLINGER

Curriculum Vitae

Jeffrey O. Hollinger, DDS, PhD is the Director, Bone Tissue Engineering Center (BTEC), Carnegie Mellon University (CMU) and is a tenured Professor of Biomedical Engineering and Biological Sciences. He has been at CMU since June of 2000. Dr. Hollinger also holds adjunct Professorial-level appointments in Orthopedics and Plastic Surgery at the University of Pittsburgh Medical School and serves on the scientific board of several companies.

Dr. Hollinger had been at the Oregon Health Sciences University from 1993-2000 as a tenured professor of Surgery, Anatomy, and Developmental Biology at the School of Medicine. He was also the president and director for research for the Northwest Wound Healing Center. Prior to 1993, Dr. Hollinger was in the United States Army at the United States Army Institute of Dental Research in Washington, DC where he headed the Physiology department and directed the bone program. He retired as a Colonel after 20 years of active military duty.

Dr. Hollinger’s training in dentistry at the University of Maryland School of Dentistry was followed by a Residency Program in the United States Army and postgraduate work in physiology at the University of Maryland resulting in a PhD.

Dr. Hollinger has published over 150 peer-reviewed articles, abstracts, chapters in texts, and texts and is on the editorial board and reviewer for many clinical and scientific journals.

Carriers to deliver bone wound modulating molecules

There is a recognized need to modulate bone wound healing. Compromised wound healers, such as geriatric patients, may need to have bone regeneration boosted. Whereas, in certain instances, such as in polytrauma, excessive bone healing may lead to heterotopic ossification. Consequently, there is a compelling clinical requirement to design and develop innovative and rational therapeutics that will meet specific, targeted clinical needs.

These needs may be addressed with novel biological and chemistry strategies. This presentation will showcase our work using bone modulating molecules and carriers. The carriers will include innovative chemistries for polyurethanes and hydrogels. Bone modulators will include growth factors and ‘small’ downstream molecules.

> Timo KRÜGER

Curriculum Vitae

Head of department clinical navigation and robotics, Charité Berlin Schooling
2000 graduate engineer at the Technical University, Berlin
2006 doctor engineer at Charité University Hospital, Berlin

Experience

2000-2002 development Engineer at metronom, Mainz
2002-2005 scientific assistant at Charité University Hospital, Berlin
Since 2004 manager of department development and production at RoboDent, Berlin
Since 2005 head of department clinical navigations and robotics at Charité University Hospital, Berlin
Curriculum Vitae


Published approximately 350 articles of original research in scientific journals, published books: Check List in Dentistry: Comprehensive Treatment Planning; Atlas of Crown and Bridge Prosthodontics, Comprehensive Treatment Planning (Thieme); Proceedings of 1st, 2nd, 3rd European Workshops on Periodontology (or attendance). Proceedings of the 4th European Workshop on Periodontology (Supplementum J Clin Periodontal)


Name: Ye LIN, 1 Sept. 1955, born Xi’an city, PR China

Present Status: Professor and chairman of Center of Implant Dentistry, Vice Dean of School of Stomatology, Peking University.

Professional field: Orthognathic Surgery Oral Implantology Maxillofacial traumatology

Professional Organization: Vice-President of Asia implant Academy Vice-President of Chinese Association of oral Implantology

Education and Working experiences:
1978-1983 Xi’an Medical University student
1983-1986 West China University of Medical Sciences (WCUMS), Postgraduate Training
1986-1990 Chief resident and Lecturer in Department Of Oral and Maxillofacial Surgery, WCUMS
1990-1995 Resident doctor in Dept. Oral and Maxillofacial Surgery, University of Cologne, Germany (with licence of German oral and maxillofacial surgeon) 1995-
Professor, School of Stomatology, Peking University

Vertical distraction osteogenesis for dental implant in sever alveolar defect cases

Since 1996 vertical alveolar distraction osteogenesis has been used to reconstruct alveolar vertical defect for dental implants. Many advances have been achieved and reported, but still some clinical problems and troubles exist in clinical application for severe alveolar defect such as: Clear indication and limitation of vertical distraction Onlay graft or vertical distraction Unfavorable soft tissue for dental implant Mobile segment deviation Incomplete distraction Horizontal defect Fibular graft distraction

Long term result

This presentation will discuss clinical approaches and strategies to solve above problems in vertical distraction practice.

Thursday p.m.
Advantages and disadvantages of navigation and implantation guides

In implant dentistry, a careful preoperative treatment planning is one of the most important factors for a successful rehabilitation. Currently, most of the methods for implant positioning are based on two-dimensional x-ray images and conventional templates fabricated on casts. During surgery, the two-dimensional planning has to be transferred into the three-dimensional anatomy of the osseous jaw. This technic may satisfy only prosthetic demands, but do not necessarily correspond to the availability of the bone structure. Several methods — especially for complex implant supported rehabilitation — have been established which allow for three-dimensionally oriented presurgical planning and its transfer to the operation site. These include static techniques based on templates fabricated with computer assistance and dynamic real-time techniques. The presentation will give an overview of different techniques and will illustrate indications, benefits and risks of these.

The Prosthetic Value of Teeth and Implants: a review of one complex case

Since the introduction of Osseointegration in the early 80’s, clinicians and patients have grown accustomed to the high success and survival rates of dental implants. Often, the psychological and psychosocial benefits gained are taken for granted. This presentation will review the course of treatment for one patient who’s clinical presentation was extremely complex, where the result of becoming edentulous at a very young age had a significant impact from a functional and psychological standpoint. The clinical results achieved transformed this patient into a new person. The complexity of the clinical presentation called for a true understanding of the skeletal relationship to the dentition and ultimately, to the dental implants. The “prosthetic value” will be shown because all surgical procedures are selected and performed to permit the ideal reconstruction and establishment of the ideal occlusion. The presentation will address the issue of when teeth with a poor prognosis clinically, should be retained while teeth that are clinically stable, should be sacrificed.

Learning Objectives
1. To provide a complete evaluation of the dental implant patient.
2. To be able to make the proper diagnosis and recommendations for treatment.
3. To develop a treatment plan that will assist the restorative doctor to provide the ideal results.

Curriculum Vitae
Dr. Pascal Marquardt, born in Saarbrücken, Germany, in 1975, studied dentistry in Freiburg. He received his D.D.S., Dr. Med. Dent. from the Albert-Ludwig-University Freiburg. He started his professional career in private practice and he has been working as a Clinical Assistant Professor since 2002 in the Department of Prosthodontics in Freiburg. Chair Prof. Dr. J.R. Strub. Dr. Marquardt treats patients in the private practice, and is responsible for postgraduate training. He is involved in research projects on dental implants, sinus augmentation and computer-aided implant planning. Dr. Marquardt is a specialist of the German Society of Prosthodontics and Dental Materials and Youngster-Member of the “Neue Gruppe”.

Curriculum Vitae
Dr. Moy received his dental degree from the University of Pittsburgh, a certificate in General Practice Residency from Queen’s Medical Center in Honolulu, Hawaii and his certificate in Oral and Maxillofacial Surgery from UCLA Hospital. He presently limits his practice to Oral and Maxillofacial Surgery focusing mainly in the areas of Osseointegrated dental implants and reconstruction of the severely atrophic ridges. He is currently on staff and holds teaching positions in the departments of Oral and Maxillofacial Surgery and Hospital Dentistry at UCLA. Dr. Moy has written numerous articles related to Implant Dentistry and Osseointegration, specifically, on bone grafting and augmentation procedures for the atrophic ridges. He has lectured nationally and internationally, most recently at the 21st Annual Meeting of the Academy of Osseointegration, held in Seattle. He founded and maintains his private practice in the West Coast Center for Oral and Maxillofacial Surgery, located in Brentwood, California. Dr. Moy was recently named the Director of Implant Dentistry at UCLA and Director, UCLA-ITI Surgical Implant Clinic.

Peter K. MOY

Pascal MARQUARDT

Thursday p.m.

Friday a.m.
INVITED SPEAKERS

> Carlos E. NEMCOVSKY

**Timing of implant placement and membrane type in healing of bony defects around implants**

Primary soft tissue closure over barrier membranes and its maintenance throughout the healing period is critical for successful guided bone regeneration. Primary soft tissue closure through a rotated palatal flap at the time of maxillary tooth extraction and delaying implant placement for a few weeks reduces incidence of membrane exposure compared to immediate implants. Resorbable collagen membranes are widely used in guided bone regeneration procedures, and do not demand a second procedure for their retrieval. However, premature resorption will lead to insufficient bone healing. Lately, certain membranes have reported an enlarged degradation time through collagen cross-linking. Recent studies suggest that cross-linked membranes might remain intact even when prematurely exposed to the oral cavity, however up to now no histologic evidence for this claim has been presented. Data comparing different membranes resorption and possibilities to delay collagen membrane degradation will be presented.

> David NISAND

**Long versus short implants: theoretical considerations**

Even if the use of endosseous dental implants has become a highly predictable therapeutic option in the last decades, restrictions have been advocated to their placement with regard to the bone available in height. Indeed, it has been historically admitted that short implants failed more often than longer ones. Advanced surgical techniques such as bone grafting, alveolar distraction or inferior alveolar nerve transposition have been then considered to allow the placement of longer implants. However, the adaptation of the implant to the anatomy through the use of short implant should be considered as a simpler procedure. Hence the purpose of this presentation is to evaluate, through a Medline search, the survival rate of implants related to their length and to discuss which factors may have been involved with success or failure of short implants.
Effects of different materials and joint configurations on peri-implant soft tissue reactions

The high levels of predictability for implant osseointegration allow us to redefine success for dental implants to better incorporate a broader range of clinical applications. Single tooth replacement, immediate placement, and aesthetic areas are appropriate areas for implant placement. Success for dental implants in applications such as these requires predictable soft tissue results with an increased emphasis on aesthetic outcomes. As we continue to increase the number and variety of implant designs and materials available, there is an increasing interest in the response of soft tissues. In the end, each of these approaches is an attempt to better control the biologic response at the implant interface to produce a successful outcome. Therefore, this presentation will focus on our current understanding of the biologic principles guiding soft tissue integration and their intersection with implant designs.

Success and failure of tooth and implant borne reconstructions: systematic reviews

In the daily praxis, dentists face the challenge of making difficult clinical decisions. When planning a fixed reconstruction, the most common possibilities are a tooth supported or an implant supported fixed partial denture (FPDs) or single crowns (SC). In the treatment planning, several risk factors have to be taken into account. For tooth and implant supported reconstructions, complications can occur over the years in function. These can be minor complications, which can be corrected or repaired without investing lots of time and effort. But there are also complications, classified as major complications, resulting in a lot of time and effort to be invested or even worse, the reconstruction has to be remade. It has been shown that despite of a high survival of FPDs, biological and technical complications are frequent.

Comparing tooth and implant supported reconstructions, the tooth supported have higher risk of biological complications. On the other hand, the implant supported have higher risk of technical complications. As there are no randomized controlled clinical trials in the dental literature comparing tooth supported FPDs to implant supported FPDs, a series of systematic reviews was performed to assess and compare the 5 and 10 year survival of tooth (conventional and cantilever FPDs), combined tooth-implant supported FPDs and solely implant supported FPDs and to evaluate the incidence of biological and technical complications.

In this lecture, the result from this systematic reviews will be presented and the different risk factors, that have to be taken into account in treatment planning of fixed reconstruction, will be discussed. Finally, the question will be addressed whether it is possible to practice evidence based treatment planning in prosthetic dentistry. Is there enough evidence available to guide us in choosing between conventional FPDs, cantilever FPDs, combined tooth-implant supported FPDs, solely implant supported FPDs and implant supported single crowns when we do our treatment planning or do we still have to go by the gut feeling and our clinical experience?
Optimal number and distribution of implants

Despite the wide spread of implant therapy, several biomechanical parameter remains unclear such as optimal number and distribution of implants which are related to esthetic outcome, morbidity, cost effectiveness and biomechanical complication. Interestingly, scientific research on this field has been rather seldom and adequate level of evidence has never been reached. Consequently, scientific knowledge on optimal number and distribution of implants are predominantly based on clinical experience, implants designs and concepts provided by the scientific company. A such, if the tendency to install as many implants as possible in full edentulism should be seriously questioned, the recurrent used of small fixed partial dentures of 2-4 units supported by 2 or 3 implants in partial edentulism raised several questioned in terms of biomechanical complication, load-bearing capacity and long-term results.

The aim of this lecture is to analyze, through a scientific approach, the wide range of therapeutic solution and to provide simple and adequate protocols.

Treatment of peri-implantitis lesions

Although treatments with dental implants have been proven effective, infections leading to loss of bone do occur. Biological complications in implant dentistry are referred to as peri-implantitis. In patients supplied with implants 9-14 years ago, 16% of the patients and 7% of the implants were found to have peri-implantitis (i.e. bone loss ≥ 3 threads compared to one year data and bleeding on probing). Risk factors associated with the development of peri-implantitis are smoking and previous experience of periodontitis. Therapies proposed for the management of peri-implantitis are smoking and previous experience of periodontitis. Therapies proposed for the management of peri-implantitis diseases appear to be based on the evidence available for treatment of periodontitis. Most publications on treatment of peri-implant lesions in humans report individual cases treated by combined procedures, aimed at reducing the bacterial load within the peri-implant pocket. Several reports have indicated a healing potential of peri-implant tissues following suppression of the peri-implant microbiota by mechanical and chemical means. Animal research have documented that it is possible to obtain re-ossosintegration after surgical cleansing of the infected implant surface, and in human studies bone apposition have been demonstrated after surgical treatment modalities. In this presentation different treatment modalities of peri-implantitis will be discussed.
The effects of the microdesign of the implant neck on tissue integration and stability

To be functionally useful, dental implants have to pierce the oral mucosa and enter the oral cavity, thus establishing a transmucosal connection between the external environment and the inner parts of the body. In order to avoid bacterial penetration through this transmucosal piercing, the early formation of a long-standing effective barrier capable of biologically protecting the peri-implant structures is of paramount importance. It is a critical part of tissue integration, and may in part depend on: Material chemistry: It is mandatory to place at the transmucosal level a material tissues can adhere to:
- c.p. titanium is the only material that has proven his biocompatibility towards the soft tissues in long-term clinical studies.
- Some positive clinical data are now available for zirconium and aluminium oxide
- Animal studies have shown that dental porcelain or gold are less biocompatible and should be avoided. Materials such as resins and composites should not be recommended up to now.
- The surface of the core material can be contaminated, altering the composition of the interface. Saliva has shown deleterious and hardly reversible effects in vivo. Other contaminations, such as handling, could also be detrimental.
Surface topography:
No clinical studies are currently available on the effect of altered surface topographies on implant prognosis.
Results from in vitro and in vivo studies indicate that surface roughness and surface texture in the micrometer range may have an impact on the early events of healing by influencing attachment, orientation, proliferation and metabolism of epithelial and connective tissue cells.
- Some roughened titanium surfaces seem to improve the formation of a superficial fibrin network, which could hypothetically be positive for the initial stability of the interface and impair epithelial cells downgrowth.
- In vitro and in vivo studies tend to indicate that epithelial cells adhesion is lower on rough titanium surfaces than on machined titanium.
- Animal studies show that micromachined grooved surfaces of appropriate dimensions can improve connective-tissue ingrowth and inhibit epithelial downgrowth.

Curriculum Vitae

Birthdate: May 24, 1963
Professor and Head,
Department of Periodontology – Dental Surgery
University of Liège, Belgium
Specialist in Periodontology
PG in Oral Rehabilitation
PG in Oral Implantology
Head of the PG program in Periodontology
Head of the PG program in implantology

The treatment of the extremely resorbed mandible

The treatment of the extremely resorbed mandible with osseointegrated implants is predictable with high success rates. This presentation includes extreme cases treated in two surgical stages as well as immediate loading protocol. In our experience all the edentulous mandibles can be treated safely without bone grafting. All the possible complication will be covered and their solution. The Branemark Novum protocol for immediate loading will be reviewed.

Curriculum Vitae

DDS degree University of Chile, Faculty of Odontontology.
DDS degree University of Cagliary, Italy. Faculty of Medicine.
Specialist in Surgery Hospital Salpêtrière, University Pierre et Marie Curie. France.
Practice limited exclusively to osseointegration surgery since 1987.
Director of Branemark Osseointegration Center Chile.
Director of Master degree on osseointegration, University Andres Bello.
International lecturer, co-author of text books and research projects.
Visitor Professor University of Chile, University Cayetano Heredia-Peru, University Francisco Marroquin-Guatemala.
Private Practice in Chile and Italy.
Scientific basis and clinical value of stability measurements of dental implants

Achievement and maintenance of stability are preconditions for a successful clinical outcome with osseointegrated dental implants. It is therefore logical to assume that implant stability measurements may serve as a useful tool for monitoring of their clinical function. Bone density is one important factor to obtain sufficient primary implant stability. The literature suggests that cutting resistance/insertion torque measurements can be used to assess bone density. However, the values seem to vary between measuring techniques and implant system. The literature is not conclusive with regard to the prognostic value of bone density measurements.

Resonance frequency analysis (RFA) and the Periotest (PT) instrument has been extensively evaluated through experimental and clinical research. It is clear that factors such as bone density and effective implant length above the bone crest influences the outcome of both RFA and PT measurements. Research work indicates that implants with high ISQ values during follow-up are successfully integrated, whilst low and decreasing ISQ values may be a sign of ongoing disintegration and/or marginal bone loss. Similarly, negative PT values indicate high stability and successful integration and that high and positive PTVs may indicate loss of stability. However, the prognostic value of RFA and PT measurements to predict implant failure have not yet been established. Nevertheless, both techniques may be valuable to obtain information about the implant-bone complex by performing repeated measurements of the same implant over time.

The scientific long term basis on implant length and number

All manufacturers of rotation-symmetric implant systems offer implants of varying lengths and diameters. However, there are generally no specifications on varying indications for the choice of the length of an implant. In the literature, there are different recommendations regarding the choice of implant length. Zitzmann and Schärer (1997), e.g., recommend that implants should be preferably longer than the roots of the teeth to be replaced. Great importance is attached to the proportion between implant and crown, which should be at least 1:1. Especially for the structurally weak maxilla, the application of the longest possible implants is demanded. Due to the often reduced vertical bone level, especially in the posterior part of the maxilla, this leads to substantial augmentative treatments. Today, however, due to the modified surface of the implants, there are reports on the successful application of short implants (< 6 mm) also in the posterior part of the maxilla. Therefore, nowadays and more than ever there is the demand for evidence-based data on short implants.

Curriculum Vitae

Date of birth: 19. October 1955 in Herne, Germany
1974 Graduation from highschool (Abitur)
1974-1977 Apprentiship as dental technician
1977-1982 Student at the Dental University of Würzburg
1983 Doctorate Dr. med. dent. University of Würzburg
1982-1985 Dept. of Dental Prosthetics at the University of Würzburg
1985-1992 Dept. of Oral and Maxillofacial Surgery at the University of Würzburg
since 1992 Dept. of Oral and Maxillofacial Surgery at the University of Heidelberg
since 1987 Use of different dental implants
Clinical requirements regarding implants in partially edentulous patients

Today clinicians are focusing on the 3-D implant placement to establish the basis for an ideal hard and soft tissue situation that is stable over time. If missing bone is the limiting factor it can be regenerated. As a certain amount of bone resorption occurs around implants after placement the distance between an implant and adjacent tooth, as well as the distance between two implants, is as important as the bone volume on the buccal side of the implant head and in the papillary area. 3-D navigation systems can be beneficial in certain indications, especially in immediate loading cases. This presentation will highlight the clinical requirements regarding implants in partially edentulous patients.

Curriculum Vitae

Dr. J. R. Strub, born in 1948, received his D.D.S., Dr. Med. Dent., and PhD degrees from the University of Zurich, Switzerland. He was a Visiting Professor of Biomaterials at Louisiana State University and was formerly Associate Professor and co-director of the Graduate Program in Periodontal Prosthetics at the University of Zurich. Since 1988, Dr. Strub has been Professor and Chair of the Department of Prosthodontics at the Albert-Ludwig University in Freiburg, Germany. Dr. Strub is married and has one child.

Implant locating and placement based on tactile registration

Computed Assisted Surgery (CAS) improves oral implant planning and positioning and increase safety and operator comfort. An Implant Locating System (ILS) has been developed based on a novel tactile imaging and registration technique. An intra-oral bone sounding device maps the jaw surface through the soft tissue establishing bone contours data that are registered over the patient’s CT image. Based on a pre-planned treatment, a chair-side robotic manipulator fabricates guiding sleeves that direct the drill and implant during the osteotomy and implant placement, respectively. The system provides a safe and accurate implant design and placement that requires only basic computer experience, minimal operational space and infra-structure investment. The ILS allows final adjustment at real time, transforming each implant surgery into a fully monitored procedure.

Curriculum Vitae

Haim Tal is Professor and Head of the Department of Periodontology, incumbent of the Dr. Gerald A. Niznick Chair of Implant Dentistry, and former Dean of the Tel Aviv University School of Dental Medicine. Prof. Tal graduated from Hadassah School of Dental Medicine at the Hebrew University, Jerusalem (1977). He took specialty training in Periodontics and Oral Medicine at the University of the Witwatersrand, Johannesburg, where he also received the degrees MDent. (1981) and PhD. in Physical Anthropology. He is the recepient of the 1984 annual fellowship award of the American Academy of Oral Medicine and the degree Doctor Honoris Causa from the University of Bukarest. Prof. Tal has published over 120 articles and lectured world wide in the fields of Periodontal regeneration, Oral Cryosurgery and Implant Dentistry.
Computer Guided Implantology: how far can we go today?

Recent improvement of implantology driven by computers deeply changed our point of view to treat patients. Using a CT scan based planning system, the surgeon is able to select the optimal location for implant placement. Today, for a better aesthetic plan, the SimPlant® program allows viewing cases in 2D and 3D. Virtual teeth can be placed without using any scanning appliance. Dr James® tool helps to friendly get a virtual implant planning proposal. Precise osteotomy control is performed using stereolithographic surgical guides. The SAFE System® is a serial instrumentation allowing transfer of planned implant positions to the mouth. Accuracy is not only related to security in implant placement, but also to aesthetics. The SAFE System® allows placing implants in their optimal position even in fresh extraction sites to preserve bone environment.

Accuracy in implant placement is such that it allows not to open flap with a submillimetric precision. Pain and swelling are minimized using trans-mucosal approach. Since 2002, vertical control of implant placement by the SAFE System® opened the way to the Immediate Smile® protocol. The prosthesis is made before the surgery without taking an impression and placed in the mouth during the same appointment as the surgery. The unique part of this procedure comes from the fact that the temporary bridge is screw retained on the implants without being relined and without using fancy and expensive components.

Based on this concept, treatment can be individualized to meet the unique needs and concerns of each patient and each dentist.

Immediate or late reconstructions in non-esthetic sites: clinical protocols in simple and complex cases

The widespread use of therapeutic alternatives with certain implants throughout the last 20 years has led to the revision of several aspects of the original two-stage Brånemark protocol, developed in the early 1970s. After following the single-stage approach as a valid treatment procedure for many years, one of the most dramatic changes in implant dentistry has been the increased acceptance of immediate loading protocols as a viable treatments option in certain clinical situations. The ultimate goal of an immediate loading protocol is to reduce the number of surgical interventions and shorten the timeframe between surgery and prosthetic delivery, all without sacrificing implant success rates. These new protocols will ultimately lessen patients reservations and result in increased acceptance of implant therapy. This presentation will address a variety of topics related to immediate loading in partially edentulous patients. The case selection process and step-by-step surgical prosthetic procedures to achieve a predictable result will be discussed.
Immediate or late reconstructions in partially edentulous patients: effect regarding hard tissue aspects

Many issues are involved in the achievement of osseointegration under immediate loading of dental implants. Between these, the micromotion of the implant seems to be the most important topic. Primary implant stability play a critical role to reduce micro-motion beneath the critical threshold of deleterious micro-motion. Under-preparation of the implant bone bed makes it possible increasing the moment of force necessary to screw the fixture in the final position site named “insertion torque”. A high compression of the peri-implant bone has been claimed to cause bone cells death, bone necrosis and ultimately lead to bone resorption in the cortical layer. To fulfill the requirement for a good primary stability without creating too much compression in the peri-implant bone, it has been suggested to insert implants with torque $\geq 30 \text{ Ncm}$, for immediately loaded full arch bridges in the mandible or partial bridges in the mandible or in the maxilla. Despite the relevance of this issue no study has been published clarifying the relationship between the excessive bone compression due to high implant insertion torque and the peri-implant bone reaction. Considering the current needs for increased implant stability aimed to immediately load dental implants, it is deemed interesting to clarify the bone healing pattern using different insertion torques. The bone compression due to excessive insertion torques in cortical and trabecular bone induces different reactions which are to be acknowledged to avoid wrong loading selection or incorrect clinical maneuvers. Literature showed that trabecular compression using the osteotomes slow the process of bone to implant adaptation while high insertion torques in cortical bone induces bone microcracks which enhances the remodeling processes producing high porosity into the compact bone.

The importance of the macrodesign of the implant neck for peri-implant tissue stability (including platform switching)

Peri-implant tissue stability has become a key issue for predictable long term success in implant dentistry. The design of the implant neck and the implant-abutment interface has been shown to significantly influence quality and quantity of peri-implant tissue components. Previous implant generations were willing to accept major tissue remodeling during the early phases of osseointegration, whereas current concepts intend to predictably maintain periimplant soft and hard tissue architecture during all phases of implant healing and function. It is the aim of this lecture to highlight the relationship between the implant neck’s macrodesign and the adjacent tissue components as well as its clinical impact.
Curriculum Vitae

Mr. Siegbert Witkowski earned his diploma in Dental Technology from an apprenticeship program in Hannover, Germany. He did postgraduate studies and gained work experience at the following institutions: University of London, Royal Dental Hospital, Chairman: R. J. Nairn, F.D.S., M.Sc. (1983-1986); University of Zürich, School of Dentistry, Chairman: Prof. Dr. F. Schärer, M.D. (1984-1986); University of Southern California, School of Dentistry, Chairman: Dr. J. D. Preston (1986-1988). Ms. Witkowski became certified by the National Board of Certification of Dental Laboratory Technology, USA, in 1986 (CDT). Since 1988, he has been working as the Chief Dental Technician in the Department of Prosthodontics, University Hospital of Freiburg, School of Dentistry, Chairman: Prof. Dr. J. E. Strub. In 1991, at the age of 30 years, he earned the diploma of the German Master Dental Technician. Mr. Witkowski was co-editor of the German journal „Implantologie [Implantology]“ (1993-2000) and „Quintessenz der Zahnärztliche Praxis [Quintessence Dental Technology]“ (1997-2000) by Quintessence, Berlin. He has co-authored a textbook for dental students (1. ed 1994, 2. ed 1995, 3. ed 2004), a book on implant prosthodontics (1996) published by Quintessence and numerous articles. He is Past Secretary (Active Member) of the German Society of Esthetic Dentistry and a member of several national and international organizations. In 2001 he was Editorial Chairman of the „Das internationale Zahntechnik Magazin [The International Dental Technology Magazine]“ published by Flohr Verlag, Rottweil. He was a member (2000-2001) of the committee to set up the first program with an engineering degree (Dipl. Ing.) for Dental Technology in Germany. In 2003 he was appointed to the Co-Editor-in-Chief of the „Quintessenz der Zahnärztliche Praxis [Quintessence Dental Technology]“ by Quintessence, Berlin. He is a member of the expert panel of the German Lab Owner Society. He has organized numerous conferences and seminars as scientific head and lecturer. Mr. Witkowski is a consultant to several manufacturers. His main interests are the esthetics of fixed and removable restorations, new crown systems, CAD/CAM- and Rapid Prototyping Technology.

Implant/abutment connections: effects on clinical and laboratory procedures resulting from various systems

At present numerous types of different implant/abutment interfaces with geometric variations are available. The geometry of the interface has an important impact to the prosthetic stability and the clinical and laboratorial procedures. Beside the joint stability the rotational stability is a major requirement of a successful implant/abutment system. Most of the long term clinical data on the performance of the interfaces are reported on the system with an external connection. In this concept the original utilization was the completely edentulous jaw and the implants were joined together with a rigid metal superstructure. In this indications the simple butt and bevel joints of the external hexagonal performed quite well. In more complex, partially edentulous and single tooth applications, this interface and the connecting screw are exposed to more rigorous load applications. To overcome some of the inherent design limitations of the external hexagonal connection, new types of gold screws in combination with higher torque force were introduced. This has not eliminated the joint problem entirely. The level of complications reported in various indications resulted in several solutions of different geometrical designs beside the external hexagonal. The most notable are the deep external joints. Little clinical reports have shown results on the stability of these new interfaces. The introduction of internal connections is characterized by a path of insertion for multiple splinted restorations and is subsequently resulting in the use of abutments for each implant. The abutments have to be transferred from the working model to the intraoral implant. Depending on the precision of the components involved this can be a difficult task. This presentation will discuss the associated rules and effects on clinical and laboratory procedures utilizing various systems.
> Karl-Ludwig ACKERMANN

Curriculum Vitae

Associated as dentist and oral surgeon together with Dr. Axel Kirsch in private practice at Filderstadt. Since 1980 clinical and experimental work in the field of peri-implant-prosthetic andro-maxillofacial implantology. Specialisations on oral rehabilitation, periodontology, implant-prosthetic, preprosthetic surgery. Board Member of the German Society of Implantology (DGI). Approved specialist in parodontology of the EDA (European Dental Association) Part-time lecturer for the Academy of Practice and Science (APW) with the German Society of Oral Medicine and Dentistry Periodical lectures in the students’ program “Implant-prosthetics and Perio-prosthetics” at the University Hospital Charité of the Humboldt-University Berlin Guest lecturer since June 2000 in the University Hospital Ulm, Dept. for Oral Surgery Visiting Professor at the Nippon Dental University, Niigata since June 2004. Lecturing internationally and multiple publications in all fields of above specialisations.

> Carlos APARICIO

Curriculum Vitae

Dr. Aparicio received his bachelor of Medicine and Surgery degree from the University of Navarra in 1978. He completed postgraduate studies in Stomatology at the University of Barcelona. He became Dental Laboratory Technician in 1984. Subsequently he became Master of Materials Science at the U. of Barcelona in 1990- In 1997, he received his diploma in Periodontics from Goetheborg University in Sweden. The author of numerous articles in referred international journals, Dr. Aparicio received the Fonseca Award from the Spanish Society of Periodontics three times and was awarded twice with the Simo Virgile Prize by the Catalonian Society of Odontostomatolgy. He is also a fellow researcher at the Handicap Research Group at the Department of Biomaterials at the University of Gothenburg. Dr Aparicio is Past President of the Osseointegration Foundation of the American Academy of Osseointegration. From 2003 to 2005, Dr. Aparicio served as Board member of the European Academy of Osseointegration. He is currently director of educational training programmes in Periodontics and Implant Dentistry in collaboration with the U. of Gothenburg and the University of Barcelona. He will be the President of the European Association of Osseointegration Barcelona meeting 2007. He is the director of Clinica Aparicio in Barcelona.

> Wolfgang BOLZ

Curriculum Vitae

Dr. Wolfgang Bolz studied dental medicine at the University of Munich and opened up his own practice in 1977. Several educational programs led him to Switzerland, Schweden and the USA. He was General Secretary of the German Society of Periodontology (DGPP) from 1989 to 1998, founding member of the European Association for Osseointegration and from 1991 to 2000 Secretary General of the EAO. He was founder and editorial board member of the journal „Parodontologie“.

In 1999 the DGPP elected him specialist for Periodontology.

After organizing the international meetings of Osseointegration in Munich he founded together with Prof. Dr. Hannes Wachtel the Institute for Periodontology and Implantology (IPI) in Munich in 1994 and opened up a new practice Dres. Bolz, Wachtel, Hürzeler, Zürich in 1998. He is organizer of numerous national and international meetings and workshops.

> Daniel BUSER

Curriculum Vitae

Dr. Daniel Buser is Professor and Chairman of the Department of Oral Surgery and Stomatology, School of Dental Medicine, University of Berne in Switzerland, where he also graduated in dental medicine 1980. He stayed twice in the US, at Harvard School of Dental Medicine in Boston (1989-91), and at Baylor College of Dentistry in Dallas (1995). His main research areas are in bone regeneration, surface technology of dental implants, and Guided Bone Regeneration, and he has authored and co-authored some 200 publications and book chapters.

He received several awards by professional organizations. Among them:
- the André Schroeder Research Prize by the International Team of Implantology (ITI)
- the Osseointegration Foundation Research Award by the Academy of Osseointegration (AO)
- the Honorary Membership Award by the American Academy of Periodontology (AAP), and
- the Daniel M. Laskin Award by the American Association of Oral and Maxillofacial Surgeons (AAOMS).

He served as president of the European Association of Osseointegration (EAO) in 1996/97, as president of the Swiss Society of Oral Implantology (SGI) in 1999/2002. Currently, he is president of the Swiss Society of Oral Surgery and Stomatology (SSOS), and board member of the ITI Foundation and the Osteology Foundation.
> Jean-Louis GIOVANNOLI

Curriculum Vitae

- Dental School - University of Paris VI (France)
- Residency in Periodontology - University of Washington (USA)
- Master in Education - University of Florida (USA)
- Former Assistant Professor - University of Florida (USA)
- Chargé de Cours - University of Paris VII

Former President of the French Society of Periodontology
Former President of the European Federation of Periodontology

Private practice limited to Periodontics and Oral Implantology
Scientific Director of Quintessence International

> Ueli GRUNDER

Curriculum Vitae

Dr. Ueli Grunder received his DMD degree from the University of Zurich, Switzerland, in 1982. His post-graduate education in advanced fixed prosthodontics also came from the University of Zurich, where he is senior lecturer since 1987. He is a certified specialist for reconstructive dentistry.

He maintains a private practice since 1989 in Zollikon-Zurich and has published numerous papers and extensively lectured nationally and internationally on the surgical and prosthetic aspects of implant dentistry.

Dr. Grunder is Past-President of the Swiss Society of Oral Implantology (SSOI) and Past-President of the European Academy of Esthetic Dentistry (EAED).

> Ronald E. JUNG

Curriculum Vitae

- Graduated from the Faculty of Dental Medicine, University of Lisbon in 1989.
- Private practice in Lisbon, exclusively, Oral Surgery and Prosthetic Rehabilitation.
- Co-author of 2 books on Oral Implantology - Immediate Function.
- Author and co-author of several scientific articles.
- Guest speaker at several international conferences on the following topics:
  - Oral rehabilitation
  - Transplant and maxilla reconstruction
  - Oral implantology
  - Interdisciplinary treatments and aesthetics
  - Management of dental clinics.
- Former Member of the Executive Board of the European Association of Osseointegration (EAO).
- Visiting Professor of the "Central European Osseointegration Centre" in Gdansk, Poland.
- Visiting Professor of the Odontology University - Rio Grande do Sul - Brazil.
- Honourable Member of the Ukrainian “Oral Implantology Association”.
- Director of Catholic University Dental Clinic, Viseu, Portugal.
- Scientific consultant for 4 leading international dental products manufacturers.
- CEO and Clinical Director of the CM - Clinica Maló, CEO of

> Paulo MALO

Curriculum Vitae

- 1995 Dental Degree (DMD) from the University of Zurich, Switzerland, Center for Dental and Oral Medicine. Between 1995 and 1997 Postgraduate Student at the Clinic for Oral Surgery, Department of Oral and Maxillo-Facial Surgery, University of Zurich (Director: Prof. Dr. Dr. h.c. H.F. Sailer). From 1997 to 1999 Associate in an implant oriented private practice in Zurich (Dres. C. Andreoni and T. Meier) and between 1999 and 2000 Postgraduate Student at the Department of Fixed and Removable Prosthodontics and Dental Material Sciences, University of Zurich (Director: Prof. Dr. P. Schärer, M.S.). Since 2000 Assistant professor and lecturer at the Department of Fixed and Removable Prosthodontics and Dental Material Sciences, University of Zurich (Director: Prof. Dr. Ch. Hämmerle).

A variety of international research project are performed in the fields of bone and soft tissue regeneration.
> Regina MERICSKE

**Curriculum Vitae**

Regina Mericske-Stern completed her graduated training in Restorative Dentistry and in Prosthodontics at the Dental Schools of the University of Bern and of Toronto. She is a Specialist in Prosthodontics (SSO) and in Implantology and frequently lectures at international meetings on these topics. She is currently the Director and Chairman of the Department of Prosthodontics, University of Bern. She is a member of various national and international societies, President of the Swiss Society of Oral Implantology (SSOI) and Co-President of the International College of Prosthodontics (ICP).

Her activities, both in clinical practice and clinical research, cover the field of oral implantology / implant prosthodontics and geriatric dentistry. These are represented in various publications, abstracts and book chapters.

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> Konrad H. MEYENBERG

**Curriculum Vitae**

Konrad H. Meyenberg graduated at the University of Zurich, Switzerland. He afterwards completed his 4-year post-graduate program in reconstructive dentistry in Zurich at the department for fixed and removable prosthodontics and material sciences (chairman: Prof. Peter Schärer). His special areas of interests he covered there where implant dentistry, perioprosthetics, adhesive dentistry and esthetic prosthodontics.

He has a private practice limited to esthetic reconstructive dentistry in Zurich, Switzerland. He is senior lecturer at the University of Zurich, Dental School, Crown and Bridge Department. He is a speaker at numerous international congresses and published numerous articles in the fields of esthetic dentistry, peri-prosthodontics and implant prosthodontics.

Active Member of the European Academy of Esthetic Dentistry, the Academy of Osseointegration and the Swiss Society of Reconstructive Dentistry. He is a certified specialist for Reconstructive Dentistry of the Swiss and European Dental Society. Member of the editorial board of the Journal of practical procedures and esthetic dentistry and the Journal of Implantology.

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> Friedrich W. NEUKAM

**Curriculum Vitae**

Born in 1949 in Vlotho/Germany. 1970 to 1976 dental studies at Mainz University. Trainee at the Department of Oral and Maxillofacial Surgery and at the Department of Oral & Cranio-Maxillofacial Surgery at Hannover University Medical School. 1979 to 1984 medical studies at Hannover University. Trainee in oral and maxillofacial surgery and senior staff at the Department of Oral & Cranio-Maxillofacial Surgery at Hannover University Medical School. 1990 Habilitation, 1994 appointed Associate Professor. Since 1st October 1995 Chairman and Head at the the Department of Oral & Cranio-Maxillofacial Surgery at Erlangen-Nuremberg University Dental School.

Curriculum Vitae

Irena SAILER

Present position
2003 - Senior Lecturer, Department of Fixed and Removable Prosthodontics and Dental Material Sciences, Center for Dental and Oral Medicine and Cranio-Maxillofacial Surgery, University of Zurich, Switzerland

Education
1981-1990 High school (Gymnasium) in Ebingen, Germany
High school diploma
1990-1997 Studies in General Dentistry, Faculty of Medicine, University of Tübingen, Germany (Graduation as Dr.med.dent.)
1998-1999 Post Graduate Studies in Oral Surgery, School of Dental Medicine, University of Zurich, Switzerland
1999-2003 Post Graduate Studies in Fixed and Removable Prosthodontics and Material Sciences, University of Zurich, Switzerland

Licences, Certifications, Titles
1997 State examination for Dentists (Graduation as Dr.med.dent) and Diploma for Dentists, University of Tübingen, Germany
1998 "doctor medicinae dentium" (Dr.med.dent.), University of Tübingen, Germany

Grants and prizes
1999-2000 One-year postdoc scholarship for advanced education in sciences German Academic Exchange Service (DAAD)
2002 2nd best poster, entitled „2- and 3- year results of zirconia posterior fixed partial dentures, made by direct ceramic machining (DCM).“ Swiss Society for Biomaterials (SSB), Geneva

Curriculum Vitae

Søren SCHOU

Søren Schou graduated in 1988 from School of Dentistry, University of Copenhagen, Denmark. He finished postgraduate training in oral and maxillofacial surgery in 1999. The performed Ph.D.- and Dr.Odont.-theses focused upon pathogenesis, diagnosis, and treatment of peri-implantitis. Until 2002 employed full-time at Department of Oral and Maxillofacial Surgery, School of Dentistry, University of Copenhagen. During the past 4 years, full-time consultant at Department of Oral and Maxillofacial Surgery, Aalborg Hospital, Aarhus University Hospital, Denmark.

Curriculum Vitae

Hubertus SPIEKERMANN

Medical and dental education in Münster, Vienna and Düsseldorf. Fulltime faculty member in the Department of Prosthodontics at the University of Düsseldorf from 1970 to 1980. Since 1980 chairman of the Department of Prosthodontics at the University of Aachen, Germany.

President German Society of Implantology (1996-1998)
President European Association of Osseointegration (EAO) 1998
President German Society of Prosthodontics (1999-2001)

Prof. h.c. - University of Peking (2000)
Dr. h.c. - University of Tübingen (2002)

He has published and lectured worldwide and is editor of the textbook „Partial Dentures“ and „Implantology“.
> Chairpersons

> Paul STONE

**Curriculum Vitae**

Paul Stone BDS(Hons) FDS RCS(Edin)
Specialist in Oral Surgery and Surgical Dentistry
Dept of Oral and Maxillofacial Surgery
Perth Royal Infirmary
Perth
Scotland

Paul is a Member of the EAO Board, Chairman of the Specialty Advisory Board in Implant Dentistry of the Royal College of Surgeons of Edinburgh, Immediate Past President of the UK Association of Dental Implantology (ADI) and Member of the General Dental Council Implant Training and Education Group. He is a Fellow of the International Team for Implantology (ITI) and also works as a member of teaching and lecturing staff at both Dundee University Dental Hospital and School and Edinburgh Postgraduate Dental Institute. His main interests are in the surgical aspects of implant and reconstructive surgery, and the development of educational techniques and standards.

> Jörg STRUB

**Curriculum Vitae**

Dr. J. R. Strub, born in 1948, received his D.D.S., Dr. Med. Dent., and PhD degrees from the University of Zurich, Switzerland. He was a Visiting Professor of Biomaterials at Louisiana State University and was formerly Associate Professor and co-director of the Graduate Program in Periodontal Prosthetics at the University of Zurich. Since 1988, Dr. Strub has been Professor and Chair of the Department of Prosthodontics at the Albert-Ludwig University in Freiburg, Germany. Dr. Strub is married and has one child.

> Georg WATZEK

**Curriculum Vitae**

1970 MD degree, Medical School, University of Vienna
1973 Speciality board examination in dentistry (DDS) Residency at Dept. of Oral and Maxillofacial Surgery, University of Vienna
1975 Fellowship at Columbia University, New York
1976 Residencies at Neurosurgery and ENT Department, University of Vienna
1979 Speciality board examination in Oral and Maxillofacial Surgery Appointed senior resident since 1982 Head of Department of Oral Surgery, University Clinic of Dentistry, Medical University of Vienna
1983-2003 President of the Austrian Society of Oral Surgery and Implantology
1987-1989 Chairman of the School of Dentistry of the University of Vienna
1989-1993 President of the Austrian Society of Dentists and Stomatologists
1991 Honorary member of the Hungarian Society of Dentists and Stomatologists
1994-1997 Visiting Professor at the University of Pennsylvania since 1998 Chairman of the School of Dentistry of the Medical University of Vienna
2003-2004 President of the European Association for Osseointegration (EAO)
2003 Honorary member of the German and Czech Society of Implantology
2006 Associated Editor of the International Journal of Oral & Maxillofacial Implants (IOMI)

Author of 8 textbooks and more than 250 publications
Bone Biology, Harvesting, and Grafting for Dental Implants: Rationale and Clinical Applications
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Anthony G. Sclar

Advanced surgical techniques for preserving and restoring natural dental esthetics in implant therapy are presented in a clear, well-illustrated, and easy-to-follow format. The author presents a systematic approach to the patient evaluation, including quantification of the positive and negative elements that enhance and detract from an individual's smile: specific surgical maneuvers including various innovative flip designs: surgical and prosthetic protocols of a technique for preserving the natural hard and soft tissue anatomy in patients undergoing tooth removal; soft tissue grafting techniques for augmenting attached tissues; and an innovative technique for reconstructing large-volume hard and soft tissue defects in the anterior maxillary area. The final chapter presents advanced cases that demonstrate the use of these procedures in various situations to guide the implant surgeon. For those who want to master new techniques for treating esthetic implant patients with a high level of predictability, this book is a must-have.

292 pp; 1,257 illus (mostly color); ISBN 0-86715-354-7; £176/€268

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The book has a methodical and comprehensive approach addressing the diagnostic, surgical, and restorative aspects of implant dentistry.

It is an invaluable guide for the practitioner embarking on this field, it is an essential reading for the experienced implantologist designed to extend the scope of his or her practice.

Practical Implant Dentistry describes techniques that are valid for the successful and predictable outcome of treatment. It is supported by relevant literature and most importantly it describes treatment proven in private practice where judgement is passed by highly critical, well-informed assessors - our patients.

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Thursday, October 5, 2006 to Saturday, October 7, 2006.

Venue
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Official language
The official language of the EAO Congress is English.

Exhibition opening hours
Thursday 5 9:00 – 18:00
Friday 6 8:30 – 18:00
Saturday 7 8:30 – 16:00
The exhibition is strictly reserved to exhibitors and registered delegates.

Registration fees for delegates include:
• Admission to all congress sessions, poster areas and technical exhibition
• The opening ceremony
• Congress documents (final programme, abstracts book, congress bag)
• Lunches and coffee breaks

TERMS OF PAYMENT:
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ON SITE Registration fees
All the prices below include Swiss VAT (7.6%)
EOA + SGI / SSRD members 490 €
Non members 635 €
Medical students 270 €
SGI: The Swiss Society of Implantology - SSRD: The Swiss Society of Reconstructive Dentistry

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Contacts
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