

## **Pre-congress Course**

### **Friday 3 June**

**09:00 – 16:00 hrs**

**ROOM A**

### **CEPHALOMETRICS IN THE DIGITAL AGE: NEW DIRECTIONS IN CLINICAL PRACTICE**

**Demetrios Halazonetis, Greece**



Demetrios Halazonetis received his dental education at the University of Athens Dental School and his orthodontic training at the Orthodontic Department of Tufts University, where he also completed a MSc course. He has been in private orthodontic practice in Athens, Greece, since 1987. In 1994 he obtained the Doctor of Odontiatiki degree (equiv. to PhD) from the University of Athens, and in 2002 he was elected Assistant Professor at the same university, where he has been involved in research and teaching at the Orthodontic Department. Dr. Halazonetis has published more than 30 scientific papers and has given more than 30 presentations at orthodontic meetings. His research interests include facial aesthetics, cephalometrics, human and computer vision, and orthodontic computer applications. He is the author of the Viewbox cephalometric software (available commercially and used in Orthodontic Departments around the world) and Associate Editor of the Technobytes section of the American Journal of Orthodontics and Dentofacial Orthopedics.

#### Contents of the course

This pre-congress course will offer practical guidelines and theoretical background to enable participants to take full advantage of current developments in cephalometrics and related diagnostic imaging. The course will cover the whole process of cephalometric analysis, from acquisition of the image to final interpretation of the results.

**Part A:** Image acquisition and enhancement. This section will include a comprehensive overview of digital imaging, from the basics of bits and pixels to sophisticated enhancement algorithms. Practical guidelines for optimal scanning of radiographs, photographs, slides and dental casts will be given. Image histograms and their use in identifying and correcting image problems will be discussed. The techniques of morphing and warping will be presented, as well as their practical application in preparing photorealistic treatment predictions.

**Part B:** Digitization. Computer-aided methods to help reduce the common sources of error in cephalometric measurements will be presented, from the currently available procedures, such as multiple digitization and computer-aided point identification, to the future prospect of fully automated digitization.

**Part C:** Measurements and analysis. Cephalometrics is a shape-measuring procedure, but the commonly used analyses are not particularly suited to this task. Morphometric methods, including Procrustes super-imposition and Principal Component Analysis will be introduced. Clinical application of these methods in radiographic and photographic facial analysis offers new potential in orthodontic diagnosis and treatment.

## Postgraduate Course Friday 3 June

09:00 – 16:00 hrs

ROOM C-D

The postgraduate course consists of two parts (morning and afternoon) and is sponsored by DENTAURUM.



### BASICS OF CLEFT LIP AND PALATE TREATMENT (Morning)

**Christos Katsaros, The Netherlands**



Christos Katsaros is Professor in Orthodontics at the Department of Orthodontics and Oral Biology at the Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands. He obtained his dental degree from the University of Thessaloniki, Greece, and he received his orthodontic training at the University of Saarland, Germany, where he also completed a Dr med dent degree and a PhD (“Habilitation”). Professor Katsaros worked also as a researcher at the Göteborg University, Sweden, where he completed a second PhD (“Odont Dr”). He served as a member of the Cleft Palate Team of the Saarland University Hospital from 1994 to 2000 and he has been a member of the Cleft Palate Craniofacial Team of the Radboud University Nijmegen Medical Centre since 2000. His main research interests are craniofacial growth and cleft lip and palate. He has authored or co-authored over 40 publications and he is a reviewer for several international scientific journals.

#### Contents

The treatment of patients with Cleft Lip and Palate (CLP) is nowadays considered a multidisciplinary approach. Special CLP teams that consist of a wide range of specialists treat CLP patients from birth to adulthood. Each team member has knowledge about the responsibilities of the other specialties, so that by working together the best possible functional and aesthetic result can be achieved for the individual patient. This course will present the state-of-the-art on the main aspects of CLP treatment and discuss aspects that still remain controversial. Special attention will be given to the influence of certain therapeutic methods on facial growth and speech. Moreover, the role and the responsibilities of the orthodontist in the CLP team, the effectiveness of infant orthopaedic treatment as well as the main orthodontic and orthopaedic treatment approaches in CLP treatment will be covered.

#### LUNCH

### BIOLOGY OF ORTHODONTIC TOOTH MOVEMENT (afternoon)

**Jaap Maltha, The Netherlands**



The *curriculum vitae* for Dr Maltha can be found at keynote lecture K-3

#### Contents

Orthodontic treatment is based on the biological principle that force application to a tooth causes a biological response in the periodontal ligament and the alveolar bone, which results in tooth displacement. But the question how to move teeth most efficiently has still not been answered. From the biological point of view efficiency means: tooth movement as fast as possible without irreversible damage to the root and surrounding structures. The ultimate goal is to achieve a predictable amount of tooth displacement in response to orthodontic forces. In this presentation it will be discussed what we know is about the biological relationship between applied forces, tooth movement and relapse.

## Scientific Programme

Saturday 4 June

Opening of the 81<sup>st</sup> congress  
08:45 – 09:15 hrs

AUDITORIUM

Sheldon Friel Memorial Lecture  
09:15 - 10:00 hrs

AUDITORIUM

DEVELOPMENTAL BIOLOGY AND THE DEVELOPMENT OF ORTHODONTICS

K-1

Irma Thesleff, Finland



Irma Thesleff first trained as a dentist and then received a PhD in developmental biology from the University of Helsinki. Following a research fellowship at the National Institutes of Health in the USA she returned to her alma mater and completed specialty clinical training in orthodontics in 1983. She has held the position of Professor and Chairman of the Department of Paediatric Dentistry and Orthodontics at the Institute of Dentistry from 1990 to 2004. Since 1996 she has been professor and research director of the Developmental Biology Programme, one of the Academy of Finland's major Centres of Excellence, located at the Institute of Biotechnology of the University of Helsinki. Professor Thesleff is a world authority on the development of teeth, the craniofacial bones and other structures that arise from ectoderm, such as hair and exocrine glands. She has published over 250 original scientific articles. She is an active participant in the international scientific community, appearing frequently as a speaker. In recognition of her many achievements, Professor Thesleff has been honoured with a number of major awards, including the prestigious Anders Jahre Prize in Medicine from Oslo University, the International Association for Dental Research Distinguished Scientist Award in craniofacial biology, and the Helsinki City Science prize. She has been awarded honorary doctorates from Sweden's University of Göteborg and Denmark's University of Copenhagen as well as McGill University, Montreal, Canada.

10:00 - 10:30 hrs Coffee break

W.J.B. Houston Research Award lectures

10:30 – 11:15 hrs

AUDITORIUM

Chairs: A.M. Kuijpers-Jagtman, F. McDonald

10:30 - 10:40 hrs	<b>UPPER INCISOR INCLINATION AND LIP LINE: AN ORTHODONTIC RELATIONSHIP?</b> <u>H.O. Devreese</u> , L.R. Dermaut, G.A.M. De Pauw	O-01
10:40 - 10:45 hrs	Discussion	
10:45 - 10:55 hrs	<b>PAIN DISCOMFORT AND CREVICULAR FLUID CHANGES INDUCED BY ORTHODONTIC ELASTIC SEPARATORS IN CHILDREN</b> <u>A. Dudic</u> , C. Giannopoulou, S. Kiliaridis	O-02
10:55 - 11:00 hrs	Discussion	
11:00 - 11:10 hrs	<b>ASSESSMENT OF CELL CYCLE IN THE CONDYLE USING MICROARRAY TECHNOLOGY</b> <u>Ch.L. Wu</u> , A.B.M. Rabie	O-03
11:10 - 11:15 hrs	Discussion	

Biology in daily orthodontics

11:20 – 12:30 hrs

AUDITORIUM

Chairs: C. Carels, S. Kiliaridis

11:20 - 11:30 hrs	<b>CLEFT PALATE: SIGNALS AND TISSUE INTERACTIONS DURING EARLY DEVELOPMENT</b> D.P.C. Rice	O-04
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11.30 - 11:40 hrs	<b>AXIN2, MSX1, AND PAX9 MUTATIONS IN OLIGODONTIA</b> S. Arte	O-05
11.40 - 11:50 hrs	<b>THE GENETIC FUNCTIONAL MATRIX THEORY</b> A.B.M. Rabie	O-06
11.50 - 12:00 hrs	Discussion	
12:00 - 12:10 hrs	<b>TISSUE REACTION TO IMMEDIATE LOADING OF TEMPORARY IMPLANTS</b> B. Melsen	O-07
12:10 - 12:20 hrs	<b>ROOT REPAIR AFTER INJURY FROM MINI-IMPLANTS</b> <u>K. Asscherickx</u> , B. vande Vannet, M.M. Sabzevar	O-08
12.20 - 12:30 hrs	Discussion	

**European Board of Orthodontists (EBO) case presentations**  
**12:30 – 13:30 hrs**

**AUDITORIUM**

**LUNCH**

**Biology in daily orthodontics**  
**13:30 – 14:50 hrs**  
Chairs: L. Dermaut, A. Zentner

**AUDITORIUM**

**Keynote Lecture**  
**13:30 - 13:55 hrs**

**BIOLOGICAL TECHNOLOGY IN YOUR CLINIC**

**K-2**

**Jonathan Sandy, United Kingdom**



Jonathan Sandy is Professor of Orthodontics and Head of the Division of Child Dental Health at the University of Bristol Dental School. His dental degree was obtained from King's College Hospital, London and his orthodontic training was undertaken at the Eastman where he spent nine years completing an MSc, consultant training and a PhD. He followed this with a postdoctoral scientist period in the Biochemistry department, University of Cambridge. He was appointed as a Consultant Senior Lecturer in 1991, promoted to a Reader in 1997 and awarded a Personal Chair in 1999. His main research interests are in craniofacial biology including development of bone. He also has an interest in cleft lip and palate and the delivery of cleft care by orthodontists. He has co-authored three books and has over 100 peer reviewed publications.

13.55 - 14:00 hrs	Discussion	
14:00 - 14:10 hrs	<b>MECHANOTRANSDUCTION PATHWAYS IN LOADED MANDIBULAR CONDYLAR CARTILAGE</b> <u>K. Basdra</u> , D. Papachristou, P. Pirttiniemi	O-09
14:10 - 14:20 hrs	<b>NON-INVASIVE ASSESSMENT OF MOTOR-UNIT PHYSIOLOGY IN JAW-ELEVATOR MUSCLES</b> <u>T. Castroflorio</u> , P. Bracco, D.C. Farina	O-10
14:20 - 14:30 hrs	<b>PERIODONTAL VASCULATURE PROFILES DURING STANDARDIZED ORTHODONTIC TOOTH MOVEMENT IN YOUNG AND ADULT RATS</b> <u>Y. Ren</u> , J.C. Maltha, A.M. Kuijpers-Jagtman	O-11
14:30 -14:40 hrs	<b>REVASCULARISATION AFTER REIMPLANTATION OF TEETH WITH AN APICAL DIAMETER SMALLER THAN 1 MILLIMETER, WITH OR WITHOUT PULP TISSUE PRESENT</b> <u>A.C.F. Karsten</u> , W. Laureys, G. De Pauw	O-12

14.40 - 14:50 hrs Discussion

**14:50 - 15:15 hrs Tea break**

**Biology in daily orthodontics**

**15:15 – 16:50 hrs**

**Chairs: H.P. Bantleon, A. Sandham**

**AUDITORIUM**

**Keynote Lecture**

**15:15 - 15:40 hrs**

**CELLS IN DAILY ORTHODONTICS**

**K-3**

**Jaap Maltha, The Netherlands**



Jaap C. Maltha graduated as a biologist at the University of Utrecht, the Netherlands, in 1971. In 1982 he defended his PhD thesis entitled “The process of tooth eruption in beagle dogs”, at the University of Nijmegen. In the meantime he was Head of the Laboratory of Oral Histology at the University of Nijmegen, the Netherlands. From 1986 he has been Associate Professor in Oral Biology and Head of the Laboratory of Oral Biology, which is part of the Department of Orthodontics and Oral Biology, Radboud University Nijmegen Medical Centre. He has authored or co-authored about 125 scientific publications on a variety of oral-biology-related topics. Most publications deal with the biological and biomechanical aspects of orthodontic tooth movement or with the biology of intra-oral wound healing related to cleft palate surgery and its consequences for the growth of the midface. Dr. Maltha will also present the morning session at the Postgraduate Course on ‘Biology of orthodontic tooth movement’.

15.40 - 15:45 hrs Discussion

15:45 - 15:55 hrs

**TNF-ALPHA INDUCED APOPTOSIS OF OSTEOCYTES IS INHIBITED BY MECHANICAL LOADING**

S.D. Tan, J.C. Maltha, J. Klein-Nulend

**O-13**

15:55 - 16:05 hrs

**APICAL ROOT RESORPTION OF UPPER INCISORS CAUSED BY TORQUE USING THE TIP-EDGE APPLIANCE**

M. van Loenen, G. de Pauw, L. Dermaut

**O-14**

16:05 - 16:15 hrs

**AN INTRA-INDIVIDUAL STUDY ON ROOT RESORPTION AFTER VERTICAL TOOTH MOVEMENT**

G. Han, J.W. Von den Hoff, S. Huang

**O-15**

16:15 - 16:25 hrs

Discussion

16:25 - 16:35 hrs

**VOLUMETRIC ANALYSIS OF ROOT RESORPTION IN HUMAN PREMOLARS UNDER CONTROLLED INTRUSIVE ORTHODONTIC FORCES.**

M.A. Darendeliler, D. Harris, A.S. Jones

**O-16**

16:35 - 16:45 hrs

**LONG TERM CONSEQUENCES OF ORTHODONTIC ROOT RESORPTION**

F. Weiland, H. Droschl

**O-17**

16.45 - 16:50 hrs Discussion

**Satellite Symposium**

**17:00 – 18:30 hrs**

**AUDITORIUM**

**INVISALIGN by Align Technology**

**A L I G N**

## **AN INVISALIGN CASE PRESENTATION RANGING FROM ROUTINE TO SPECIALIZED CASES**

Werner Schupp, Cologne, Germany

Dr. Werner Schupp graduated from Westfälische Wilhelms Universität, Münster. He holds a private orthodontic practice in Cologne, Germany. He is the past president of the German Board of Orthodontics and Orofacial Orthopaedics. He has published in Kieferorthopädie and Manuelle Medizin, and he is an editor of the periodical Manuelle Medizin and Manuelle Springer. He has treated more than 300 Invisalign cases to date. Dr. Schupp speaks widely at congresses across Europe, and most recently he lectured on Invisalign and orthodontic treatments in Brazil. He specializes in TMD and has been working on several private practice studies, including advancements with attachments (treatment of TMJ with Invisalign), with Align Technology. Dr. Schupp is a member of the Align Europe - Clinical Education Council and 2005 European Platinum Doctor. Recently he had a case featured in several magazines, and is one of the leading Invisalign practitioners in Europe.

## **INTER-CLINICIAN RELIABILITY OF TREATMENT PLANNING USING "CLINCHECK"**

Sheldon Baumrind, San Francisco, California, USA

Dr. Baumrind is Professor of Orthodontics at the University of the Pacific and the University of Medicine and Dentistry of New Jersey, and Professor Emeritus of Growth and Development, Radiology, and Orthopaedic Surgery at UCSF. He also serves as the Director of the Craniofacial Research Instrumentation Laboratory (CRIL) at the University of Pacific. Aside from numerous other collateral appointments, Dr. Baumrind has published over 100 publications. He has numerous research interests, including 3D imaging. One area of recent interest has been 3D outcome measurements using ClinCheck - a computer aided 3D software program by Align Technology. Dr. Baumrind presented on this topic at the 2004 Invisalign Summit as well as at the 2005 IADR meeting in Baltimore, Maryland.

## **President's Reception and Silver Mill Competition (dress informal)**

### **20:00 – 00:00 hrs**

At 19:00 hr busses will leave from the RAI Congress Centre for a 20-minutes ride to the Amsterdam Convention Factory, Czaar Peterstraat 213, AMSTERDAM. The entrance for this event is free for all delegates and registered accompanying persons, but don't forget to take your ticket with you.

# Scientific Programme

Sunday 5 June

## Interdisciplinary Orthodontics

08:30 - 10:00 hrs

Chairs: C. Katsaros, D. Turpin

AUDITORIUM

## Keynote Lecture

08:30 - 08:55

**SKELETAL ANCHORAGE SYSTEM (SAS):  
BEYOND THE LIMITS OF TRADITIONAL ORTHODONTICS**

K-4

Junji Sugawara, Japan



Junji Sugawara is Associate Professor in orthodontics at the Division of Orthodontics and Dentofacial Orthopedics, Graduate School of Dentistry, Tohoku University, Sendai, Japan. He graduated from Tohoku University and has worked there for over 30 years. He was also a Visiting Assistant Professor in the Department of Orthodontics at the University of Connecticut, USA. He is an active member of the E.H. Angle Society (North Atlantic Component). Dr. Sugawara has worked extensively with the Skeletal Anchorage System (SAS), which consists of titanium orthodontic anchor plates that are temporarily implanted in the zygomatic buttress and/or the mandibular body with monocortical titanium screws.

08.55 - 09:00 hrs	Discussion	
09:00 - 09:10 hrs	<b>POST SURGICAL STABILITY OF BONE PLATE SKELETAL ANCHORAGE</b> <u>H. De Clerck</u> , M. Cornelis, C. Behets	O-20
09:10 - 09:20 hrs	<b>ZYGOMATIC ANCHORAGE SUPPORTED MOLAR DISTALIZATION</b> <u>N. Erverdi</u> , S. Turan	O-21
09:20 - 09:30 hrs	<b>MINI-IMPLANT ACTIVATION AFTER DIFFERENT BONE HEALING PERIODS: HISTOLOGIC STUDY IN BEAGLE DOGS.</b> <u>P.G. Coelho</u> , J.N.O. Freire	O-22
09:30 - 09:40 hrs	<b>MINI PIGS AND MICRO SCREWS</b> <u>D. Wiechmann</u> , A. Berens, A. Büchter	O-23
09:40 - 09:50 hrs	<b>MINI- AND MICROSCREWS AS TEMPORARY SKELETAL ANCHORAGE IN ORTHODONTICS</b> <u>A. Berens</u> , D. Wiechmann	O-24
09.50 - 10:00 hrs	Discussion	
<b>10:00 - 10:30 hrs</b>	<b>Coffee break</b>	

## Free Topics (parallel session)

08:30 - 10:00 hrs

Chairs: J. Maltha, J. Pilon

ROOM A

08:30 - 08:40 hrs	<b>THE INFLUENCE OF MORPHOLOGICAL ABNORMALITIES OF INCISORS ON THE POSITION OF THE CENTRE OF RESISTANCE AND THE STRESS DISTRIBUTION AROUND ORTHODONTICALLY LOADED TEETH</b> <u>C. Bouraue</u> , A. Ziegler, A. Jäger	O-25
08:40 - 08:50 hrs	<b>LONG - TERM SUCCESS OF AUTOTRANPLANTED MAXILLARY CANINES; A RETROSPECTIVE INVESTIGATION</b> <u>S.A. Patel</u> , M. Bains, D. Bister	O-26

08:50 - 09:00 hrs	<b>RELATIONSHIPS BETWEEN MALOCCLUSIONS AND PERIODONTAL ATTACHMENT LOSS OR INCREASED POCKET DEPTH IN ADULTS</b> <u>D.G. Gesch</u> , T. Gedrange, T. Kocher	O-27
09:00 - 09:10 hrs	<b>EXTRAORAL VERSUS INTRAORAL APPLIANCE FOR DISTAL MOVEMENT OF MAXILLARY FIRST MOLARS - A RANDOMIZED CONTROLLED TRIAL</b> <u>I. Karlsson</u> , L. Bondemark	O-28
09:10 - 09:20 hrs	Discussion	
09:20 - 09:30 hrs	<b>A PROSPECTIVE COMPARISON OF THE EFFECTS OF THE TWIN-BLOCK APPLIANCE AND THE DYNAMAX APPLIANCE ON THE SKELETAL AND DENTAL TISSUES</b> <u>G.J. Mack</u> , R.T. Lee	O-29
09:30 - 09:40 hrs	<b>A PROSPECTIVE RANDOMISED CONTROLLED STUDY COMPARING THE TREATMENT AND POST-TREATMENT EFFECTS OF THE TWIN BLOCK AND BASS DYNAMAX APPLIANCES ON THE SOFT TISSUES.</b> <u>C.S. Kyi</u> , R.T. Lee	O-30
09:40 - 9:50 hrs	<b>EFFECTIVENESS AND SUCCESS RATE OF ACTIVATOR TREATMENT</b> <u>C. Casutt</u> , S. Ruf, H. Panherz	O-31
09.50 - 10:00 hrs	Discussion	
<b>10:00 -10:30 hrs</b>	<b>Coffee break</b>	

### Interdisciplinary Orthodontics

**10:30 - 11:35 hrs**

**AUDITORIUM**

**Chairs: S. Ruf, D. Suárez Quintanilla**

10:30 - 10:40 hrs	<b>FINITE ELEMENT ANALYSIS OF STRESS AND STRAIN AROUND ORTHODONTICALLY LOADED IMPLANTS: AN ANIMAL STUDY</b> <u>P.M. Cattaneo</u> , M. Dalstra, B. Melsen	O-32
10:40 - 10:50 hrs	<b>TWO RAPID CANINE RETRACTION TECHNIQUES: ALVEOLAR BONE DISTRACTION OSTEOGENESIS VERSUS PERIODONTAL MEMBRANE DISTRACTION OSTEOGENESIS</b> <u>G. Durmus Filik</u> , S. Biren	O-33
10:50 - 11:00 hrs	<b>EFFECTS OF RAPID CANINE RETRACTION USING DENTOALVEOLAR DISTRACTION OSTEOGENESIS (DAD) COMPARED TO CONVENTIONAL TOOTH MOVEMENT</b> <u>G. Kurt</u> , H. Iseri, R. Kisnisci	O-34
11:00-11:10 hrs	Discussion	
11:10 - 11:20 hrs	<b>TREATMENT OF OBSTRUCTIVE SLEEP-DISORDERED BREATHING WITH A MANDIBULAR PROTRUSIVE APPLIANCE. A CASE CONTROL STUDY</b> <u>E.C. Rose</u> , S. Sorichter, I.E. Jonas	O-35
11:20 -11:30 hrs	<b>OBSTRUCTIVE SLEEP APNOEA SYNDROME IN CHILDREN: THERAPEUTIC EFFECTS OF RAPID MAXILLARY EXPANSION</b> <u>P.P. Pirelli</u> , M. Saponara	O-36
11.30 - 11:35 hrs	Discussion	

## Cephalometric alternatives (parallel session)

10:30 - 11:35 hrs

Chairs: L. Graber, R.-R. Miethke

ROOM A

### Keynote Lecture

10:30 - 10:55 hrs

## CONTEMPORARY ORTHODONTICS AND THE PROGRESSION TO SOFT TISSUE BASED DIAGNOSIS AND TREATMENT PLANNING

K-5

David Sarver, USA



David Sarver received his DMD from The University of Alabama School of Dentistry in 1977. He subsequently received his certificate and MSc in Orthodontics from the University of North Carolina in 1979. He is a Diplomate of the American Board of Orthodontics, a member of the Edward H. Angle Society of Orthodontists, and a Fellow in both the International and American Colleges of Dentists. In addition to his private practice in Vestavia Hills, Alabama, he is an Adjunct Professor at the University of North Carolina.

Dr. Sarver has authored or co-authored over 40 scientific articles, 12 book chapters, and his book 'Esthetics in Orthodontics and Orthognathic Surgery' was published in September 1998. He is also co-author (with Proffit and White) of the new surgical text 'Contemporary Treatment of Dentofacial Deformity'. He won the 2004 BF Dewel Award for the best clinical article in the American Journal of Orthodontics and Dentofacial Orthopedics. He has given more than 180 professional presentations in the United States, Europe, Australia and the Middle and Far East.

10.55 - 11:00 hrs	Discussion	
11:00 - 11:10 hrs	<b>PRESENTATION AND VALIDATION OF THREE-DIMENSIONAL (3-D) HARD AND SOFT TISSUE CEPHALOMETRIC ANALYSIS.</b> <u>G.R.J. Swennen</u> , F. Schutyser, A. De Mey	O-37
11:10 - 11:20 hrs	<b>A 3-DIMENSIONAL ANALYSIS OF FACIAL GROWTH IN A COHORT OF CHILDREN</b> <u>C. Kau</u> , A. Zhurov, S. Richmond, J. Knox	O-38
11:20 - 11:30 hrs	<b>VISUALISING THREE-DIMENSIONAL FACIAL CHANGES FOLLOWING ORTHOGNATHIC SURGERY</b> <u>D.O. Morris</u> , L. Miller, E. Berry	O-39
11.30 - 11:35 hrs	Discussion	

## Interdisciplinary Orthodontics

11:40-12:30 hrs

Chairs: B. Kahl-Nieke, P. Planché

AUDITORIUM

11:40 - 11:50 hrs	<b>ASYMMETRIES IN THE FRONTAL PLANE, AN ORTHODONTIC AND ORTHOPEDIC EVALUATION</b> <u>H.M. Korbmacher</u> , L. Koch, B. Kahl-Nieke	O-40
11:50 - 12:00 hrs	<b>A FOLLOW-UP STUDY OF TMD IN RELATION TO MRI FINDINGS IN ADULT ORTHODONTIC/ORTHOGNATHIC PATIENTS</b> <u>P.M. Pirttiniemi</u> , J. Karikko, A. Raustia	O-41
12:00 - 12:10hrs	<b>LONG TERM RESULTS OF MULTIDISCIPLINARY TREATMENT OF AGENESIS</b> <u>C.E. Poggio</u> , M. Salvato, A. Salvato	O-42
12:10 - 12:20hrs	<b>TREATMENT OUTCOME AFTER TWO-STAGE PALATAL CLOSURE IN UNILATERAL CLEFT LIP AND PALATE: A COMPARISON WITH EUROCLEFT</b> <u>P.J.P.M. Nolle</u> , C. Katsaros, A.M. Kuijpers-Jagtman	O-43

12.20 - 12:30 hrs Discussion

**LUNCH** Poster and table clinic presenters are present in the poster area in the Upper Lounge Auditorium to discuss their contributions with the participants.

**Cephalometric alternatives (parallel session)**

**11:40 - 12:35 hrs**

**Chairs: B.M. DeSoto, A. Stenvik**

**ROOM A**

**Keynote Lecture**

**11:40 - 12:05**

**CEPHALOMETRIC ALTERNATIVES**

**K-6**

**Monica Palmer, Germany**



Monica Palmer is in private orthodontic practice in Berlin, Germany. Her main orthodontic interest is adult interdisciplinary treatment, especially in the combined orthodontic surgical approach. Distraction osteogenesis to advance the mandible in orthognathic surgery cases is a key interest and she has been invited as keynote speaker on this subject to many international meetings. Aesthetics and harmony of the jaws and teeth and modern imaging techniques to aid diagnosis, treatment planning and treatment evaluation in combined orthosurgical cases is another main concern. Dr. Palmer is a member of the Angle Society of Europe, European Orthodontic Society, and an international member of the American Association of Orthodontists. Dr. Palmer is also an artist who is interested in the theories of colour, balance, harmony and aesthetics and their role in art and in orthodontics.

12.05 - 12:10 hrs Discussion

12:10 - 12:20 hrs **SMILE LATERAL BLACK CORRIDORS : AESTHETIC VALUE FOR DENTISTS AND LAYPERSONS**  
M. Cozzani, L. D'Elia, A. Gracco **O-44**

12:20 - 12:30 hrs **ARTIFICIAL INTELLIGENCE: A NEW APPROACH TO CEPHALOMETRIC DIAGNOSIS**  
J. Lavergne, N. Gasson **O-45**

12.30 - 12:35 hrs Discussion

**LUNCH** Poster and table clinic presenters are present in the poster area (Upper Lounge Auditorium) for discussion of their contributions with the participants

**12:30 - 15:00 hrs Poster presentations UPPER LOUNGE AUDITORIUM**

**15:00 - 15:20 hrs Tea break  
Interdisciplinary Orthodontics**

**15:20 - 16:40 hrs**

**Chairs: U. Hägg, J. Huggare**

**AUDITORIUM**

**Keynote Lecture**

**15:20 - 15:45 hrs**

**Maurice Mommaerts, Belgium**



Maurice Y. Mommaerts is a Consultant maxillofacial surgeon at GH St. Jan Bruges and GH St. Elisabeth Herentals, and Director of the Cleft and Craniofacial Centre Bruges. He is also in private practice in cosmetic facial surgery, Clinic Tilleghem, Bruges (Belgium). He was trained in craniomaxillofacial surgery (Prof. Obwegeser, Prof. Sailer) and paediatric surgery in Zurich (Prof. Perko), in head and neck surgery (Prof. Fossion) and oral and maxillofacial surgery (Prof. Bossuyt) in Leuven, in plastic surgery in Miami (Dr. Millard Jr) and Lausanne (Prof. R. Meyer). DU in facial plastic surgery from Université de Nancy (Prof. Stricker). His main interests are in craniostylosis, cleft lip and palate, cosmetic surgery, orthognathic surgery and distraction osteogenesis. Dr. Mommaerts has authored over 100 publications. He serves as a member of the editorial board of Journal of Cranio-Maxillofacial Surgery, British Journal of Oral and Maxillofacial Surgery and as an international member of the editorial board of Revista Espanola de Cirugia Oral y Maxilofacial, and Indian Journal of Plastic Surgery. He has been nominated Junior President elect of the European Association of Cranio-Maxillofacial Surgery.

15.45 - 15:50 hrs	Discussion	
15:50 - 16:00 hrs	<b>BONE BORN RAPID PALATAL EXPANSION (RPE)- A MINIMAL INVASIVE TECHNIQUE</b> <u>W.R. Harzer</u> , E. Tausche	<b>O-46</b>
16:00 - 16:10 hrs	<b>THE ROTTERDAM PALATAL DISTRACTOR FOR WIDENING THE NARROW MAXILLA: AN ANALYSIS OF THE FIRST 25 CASES</b> <u>E.B. Wolvius</u> , K.G.H. van der Wal, E.M. Ongkosuwito	<b>O-47</b>
16:10 - 16:20 hrs	<b>EFFECT OF ACTIVATOR TREATMENT IN GROWING PATIENTS AFTER UNILATERAL VERTICAL RAMUS LENGTHENING BY DISTRACTION OSTEOGENESIS (DO)</b> <u>T.K. Pedersen</u> , T. Kofod, S.E. Noerholt	<b>O-48</b>
16:20 - 16:30 hrs	<b>COMPLICATIONS DURING MANDIBULAR MIDLINE DISTRACTION</b> <u>J. von Bremen</u> , H. Pancherz, W.M. Kater	<b>O-49</b>
16.30 - 16:40 hrs	Discussion	

**Free Topics (parallel session)**

**15:20 - 16:30 hrs**

**ROOM A**

**Chairs: P. Pirttiniemi, J.W. von den Hoff**

15:20 - 15:30 hrs	<b>TISSUE ENGINEERED MUCOSAL SUBSTITUTES IN THE DOG PALATE</b> <u>J.W. von den Hoff</u> , R. Ophof, J.C. Maltha	<b>O-50</b>
15:30 - 15:40 hrs	<b>MUTATION SCREENING OF THE IRF6 GENE IN SWEDISH FAMILIES WITH NON-SYNDROMIC CLEFT LIP AND PALATE</b> <u>M.P. Pegelow</u> , L-A. Karsten, M. Peyrard-Janvid	<b>O-51</b>
15:40 - 15:50 hrs	<b>CORRELATION OF SPONTANEOUS MASTICATORY MUSCLE ACTIVITY IN FREELY MOVING RABBITS</b> <u>T. Gruenheid</u> , G.E.J. Langenbach, T.M.G.J. van Eijden	<b>O-52</b>
15:50 - 16:00 hrs	Discussion	
16:00 - 16:10 hrs	<b>FLUORIDE RELEASE FROM ORTHODONTIC BONDING MATERIALS: AN IN VITRO STUDY</b> <u>P. Tagliani</u> , M.F. Sfondrini, V. Cacciafesta	<b>O-53</b>

16:10 - 16:20 hrs      **CARIES-INHIBITING PREVENTIVE MEASURES USED IN  
ORTHODONTIC PRACTICES, AN EVIDENCE BASED DECISION?**  
A. Derks, A.M. Kuijpers-Jagtman, J.E. Frencken      **O-54**

16.20 - 16:30 hrs      Discussion

**Satellite Symposium**  
**16:45 – 18:15 hrs**

**ROOM A**

**DELTA LLOYD Private Banking**  
**(in Dutch, no simultaneous translation)**

Delta Lloyd Private Banking  
door Private Bankers

**Amsterdam Swing Postgraduate Disco Party** (ticket required)  
**22:00 – 02:00 hrs**

The venue for this event is the Hotel Arena 'Tonight' Club, located in the building's former chapel, 's Gravesandestraat 51, AMSTERDAM. For postgraduates the entrance fee is included in their registration fee. All others pay € 50.00.

## Scientific Programme

Monday 6 June

### The Digital Decade

08:45 - 10:10 hrs

Chairs: P. Leitao, B. Melsen

AUDITORIUM

### Keynote lecture

08:45 - 09:15 hrs

AUDITORIUM

ICEPH- AN AUTOMATIC RECOGNITION OF THE HUMAN FACE

K-8

Kenji Takada, Japan



Kenji Takada is Professor and Chair in the Department of Orthodontics and Dentofacial Orthopaedics at the Graduate School of Dentistry of Osaka University (Japan). His research interests include the mathematical description of the decision making process in orthodontic diagnosis and treatment planning, with particular emphasis on kinematics of the jaw motion control and automatic recognition of dentofacial form. Dr. Takada is a member of the Edward H. Angle Society of Orthodontists North Atlantic Component as well as several other international organizations. He has published extensively about his research interests in Japanese and international journals and has lectured in North America and in several countries of Europe. He is editor and (co)author of the books 'Brain and Oral Functions' (1995), 'Orthodontic Hyperknowledge' (1999) and 'Orthodontics in the 21st century' (2002).

09.15 - 09:20 hrs

Discussion

09:20 - 09:30 hrs

**AUTOMATIC LANDMARKING OF CEPHALOGRAMS BY CELLULAR NEURAL NETWORKS (CNNS) AND ALGORITHMS.**

R. Leonardj, D. Giordano, M. Caltabiano

O-60

09:30 - 09:40 hrs

**RUGAE AS LANDMARKS FOR EVALUATION OF CHANGES ON DIGITAL DENTAL CAST ANALYSIS. ARE THEY REALLY STABLE?**

P. Christou, S. Kiliaridis

O-61

09:40 - 09:50 hrs

**VIRTUAL INDIRECT BONDING: A NEW TOOL IN DIGITAL ORTHODONTICS**

F. Garino, G.B. Garino

O-62

09:50 - 10:00 hrs

**DEVELOPMENT OF THE DENTITION IN VIRTUAL REALITY: AN EDUCATIONAL TOOL**

F.P.G.M. van der Linden

O-63

10.00 - 10:10 hrs

Discussion

**10:10 - 10:40 hrs Coffee break**

### The Digital Decade

10:40 - 11:40 hrs

### Free topics

11:40 - 12:30 hrs

AUDITORIUM

Chairs: A.E. Athanasiou, N. Erverdi

### Keynote lecture

10:40 - 11:10 hrs

**James Mah, USA**

James Mah is an Associate Clinical Professor of Orthodontics at the University of Southern California and the Director of the Craniofacial Virtual Reality Laboratory, which is focused on creating virtual three-dimensional craniofacial patients upon which diagnosis, treatment planning and simulations can be performed for dental patients. Following his dental and orthodontic training at the University of Alberta, Canada, he graduated from Harvard University with a Doctorate of Medical Science degree and completed a Post-Doctoral Fellowship in the Department of Orthopedics at Children's Hospital, Boston. He was a full-time faculty member in the Department of Orthodontics at Harvard University prior to his current position at the University of Southern California. Dr. Mah has authored over 40 publications, 4 textbooks, several book chapters and has made over 50 presentations nationally and internationally. Dr. Mah is a recognized expert in 3D imaging, visualization and modelling. He serves as the technology editor of the Journal of Clinical Orthodontics. His work has been featured in the Los Angeles Times, The National Post, Tech TV, and other magazines and journals.

11.10 - 11:15 hrs	Discussion	
11:15 - 11:25 hrs	<b>CT-BASED MORPHOMETRICAL INVESTIGATION OF HEMIMANDIBULAR HYPERPLASIA BY APPLYING MODERN DIGITAL ANALYSIS METHODS</b> U. Hirschfelder	<b>O-64</b>
11:25 - 11:35 hrs	<b>PLACEMENT OF ORTHODONTIC MICRO-IMPLANTS USING AN IMAGE-GUIDED NAVIGATION SYSTEM</b> <u>M. Präger</u> , V. Karapetian, J.E. Zöller	<b>O-65</b>
11:35 - 11:40 hrs	Discussion	
11:40 - 11:50 hrs	<b>FACTORS INFLUENCING LONG-TERM MANDIBULAR INCISOR ALIGNMENT AFTER EXTRACTION TREATMENT</b> <u>R. Perry</u> , S.M. O'Hanrahan, B. Johannesen, L. Espeland	<b>O-66</b>
11:50 - 12:00 hrs	<b>POSTRETENTION CHANGES OF LOWER INCISOR ALIGNMENT</b> <u>S.H. Beckmann</u> , R.B. Kuitert, A. Zentner	<b>O-67</b>
12:00 - 12:10 hrs	<b>TREATMENT CHANGES IN BORDERLINE CASES: EXTRACTION VERSUS NONEXTRACTION WITH AIR-ROTOR STRIPPING TECHNIQUE</b> <u>D. Germec</u> , U. Taner	<b>O-68</b>
12:10 - 12:20 hrs	<b>A ESEM/SEM EXAMINATION OF ENAMEL EXPOSED TO THREE DIFFERENT ORTHODONTIC BONDING SYSTEMS</b> <u>B. Øgaard</u> , M. Fjeld	<b>O-69</b>
12.20 - 12:30 hrs	Discussion	

**LUNCH****European Board of Orthodontists (EBO) case presentations****12:30 - 13:30 hrs****AUDITORIUM****Announcement of Award Winners****13:30 - 13:45 hrs****AUDITORIUM****Free Topics****13:45 - 15:50 hrs****AUDITORIUM**

Chairs: W. Harzer, F. Miotti

13:45 - 13:55 hrs	<b>ALVEOLAR DISTRACTION: OUR EXPERIENCE</b> <u>A. García García</u> , D. Martins Horta, P. Gándara Vila	O-70
13:55 - 14:05 hrs	<b>PERCEPTION OF BONE PLATES USED FOR ORTHODONTIC ANCHORAGE: A QUESTIONNAIRE STUDY</b> <u>M. Cornelis</u> , N. Scheffler, H. De Clerck	O-71
14:05 - 14:15 hrs	<b>SAGITTAL AND VERTICAL LOAD-DEFLECTION AND PERMANENT DEFORMATION OF SOLDERED, LASER WELDED AND ADHESIVELY BONDED TRANSPALATAL ARCHES CONNECTED WITH PALATAL IMPLANTS - AN IN VITRO STUDY</b> <u>A.G. Crismani</u> , A.G. Čelar, H.P. Bantleon	O-72
14:15 - 14:25 hrs	<b>NITRIC OXIDE SYNTHASES REGULATE MATURATION OF GROWTH PLATE CHONDROCYTES</b> C. Teixeira	O-73
14:25 - 14:35 hrs	<b>COLLAGEN FIBERS ARE CRUCIAL FOR THE BIOMECHANICS OF THE PERIODONTAL LIGAMENT</b> <u>E.B.W. Giesen</u> , W. Wilson, J.C. Maltha	O-74
14:35 - 14:45 hrs	Discussion	
<b>14:45 - 15:10 hrs</b>	<b>Tea break</b>	
15:10 - 15:20 hrs	<b>INVISALIGN – IS IT SATISFACTORY FOR PATIENTS AND ORTHODONTICS?</b> <u>R.-R. Miethke</u> , V. Nedwed, A. Kaul	O-75
15:20 - 15:30 hrs	<b>COMPARISON OF THE INITIAL ORTHODONTIC FORCE SYSTEMS PRODUCED BY TWO LINGUAL BRACKET SYSTEMS AND A LABIAL STRAIGHT WIRE APPLIANCE</b> <u>L.-M. Fuck</u> , D. Wiechmann, D. Drescher	O-76
15:30 - 15:40 hrs	<b>NICKEL SENSITISATION FOLLOWING THE EXPOSURE TO ORTHODONTIC APPLIANCES AND PIERCING</b> <u>R. Fors</u> , M. Persson	O-77
15:40 - 15:50 hrs	Discussion	

### European Orthodontic Society Business Meeting

(members only)

**16:00 – 17:00 hrs**

**AUDITORIUM**



**Agenda** see listing of meetings in this abstract book

**Nederlandse Vereniging van Orthodontisten 'DMO'**  
**Business Meeting** (members only)  
**17:00 – 18:00 hrs**

**ROOM C**



**Agenda** has been distributed to the members