International Meeting of Computer Aided Implantology Academy
XII Annual Meeting
The CAI Academy is the oldest non-profit international scientific association dedicated to provide continuous stimulus and education in Digital dentistry, oral implantology and oro maxillofacial surgery. Dentistry is following the trend of digital solutions, which invaded our everyday life. Resisting adopting digital trend means losing opportunities to treat our patient at the State of the Art. The CAI Academy is gathering the world leaders in this field. Every time we meet, we discover new techniques, new talents and new advanced clinical cases.

The XII Annual Congress will be a “Grand Cru” based on the quality of the speakers, the quality of the audience and the quality of our sponsors.

I thank you all for your trust and for your support.

Dr. Philippe Tardieu
President of the CAI Academy
Friday October 27, 2017

08:00  Registration
08:45  Welcome and word of the president
       Philippe Tardieu & Steering committee
09:00  Biomaterials: a new generation of Bone Substitutes
       Gianni Pertici, Dr. Maurizio Martini
09:20  Computer Dynamic Navigation in Implant Surgery
       Luca Casalena, Dr. Anwar Shaikh
09:40  Innovations in Metal 3D Printing for Dental Implantology
       Julian Callanan, Dr. Khalid Ekram
10:00  Digitally Guided CranioMaxillo Facial reconstructions
       Dr. Benoît Philippe
11:00  Coffee break
11:30  Computer Assisted Rehabilitations
       Dr. Michele Manacorda
12:30  Lunch & Prayer break
13:30  Bone Grafting and Reconstructive Protocols using Three-Dimensional Technologies
        Dr. Marco Rinaldi

14:30  Computer Guided Immediate loading implantology
        Dr. Philippe Riester

15:00  Coffee break

15:30  Digital approach to immediate implantology: the solution for complex cases with bone atrophy
        Dr. Alessandro Palumbo

16:00  Guided Esthetics: switching between virtual planning and reality
        Uli Hauschild

16:30  Questions & Answers

Speakers of the day
Saturday October 28, 2017

08:45 Welcome and introduction
09:00 Guided surgery and conometric fixed prosthesis. New possibilities…
Prof. Eriberto Bressan
09:30 Day to day use of computer guided implantology
Dr. Matthieu Gabriele
10:00 Computer Guided Bone Regeneration:
   improve esthetic and function in severe atrophy
Prof. Silvio Meloni
10:30 Coffee break
11:00 Digital Orthodontics
Dr. Fabien Depardieu
11:30 Implant guided transcrestal lift. An alternative surgical approach
Dr. Roberto Marra
12:00 How to increase your clinical efficiency using Insigna braces
Dr. Firas Hamzeh
12:30 Lunch break
13:00  WORKSHOP #1 (FIRST SESSION)
Navigation Claronav Computer Dynamic Navigation in Implant Surgery
Dr. Anawar Shaikh, Luca Casalena

13:00  WORKSHOP #1 (FIRST SESSION)
AxisGuide & Easy Implant 3D treatment planning and implant placement in the plastic model using surgical guide
Prof. Vladimir Kokovic

14:30  Break

15:00  WORKSHOP #2 (SECOND SESSION)
Navigation Claronav Computer Dynamic Navigation in Implant Surgery
Dr. Anawar Shaikh, Luca Casalena

15:00  WORKSHOP #2 (SECOND SESSION)
AxisGuide & Easy Implant 3D treatment planning and implant placement in the plastic model using surgical guide
Prof. Vladimir Kokovic

16:30 to 17:00
Open forum
Speakers of the day
Dr. Michele MANACORDA, Italy
Computer Aided Reconstruction, a mobile workflow

INTRODUCTION
Graduate in Dentistry from Milano State University in 1985. University professor in Oral Surgery and Student Tutor at Vita-Salute University, San Raffaele Milano. Scientific consultant for Dental Clinic at the Dentistry Unit of S. Raffaele Hospital in Milano. In the same structure is responsible of Digital Diagnosys and Computer Aided Implantology. In his private office in Milano (Italy) is specialist in Implantology, Digital Prosthesis and new technologies. Author of several Scientific papers, is also co-author of scientific textbooks. Teacher in postgraduate courses and speaker in national and international congress. Co-founder of Implant Research Association San Raffaele (ACRIS).

ABSTRACT
Computer-assisted implanto-prosthetic planning represents a new way to approach oral rehabilitation in edentulous patients. Defining the protocol as Computer Aided Reconstruction means that via digital imaging is possible to design a functional and aesthetic project for an immediate loading mini-invasive implant surgery. The interdisciplinary analysis of the “Virtual Patient” allows the morphological, functional and aesthetic study of teeth, maxillofacial bones and visage harmony outcome, with the purpose of planning an implant-supported dentoalveolar prosthesis. The aim of this lecture is to illustrate a procedure that uses the most advanced technologies, both for planning and manufacturing, fully managed in a continuous workflow between the Dentist and the Technician.

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Dr. Benoît PHILIPPE, France
Digitally Guided Cranio MaxilloFacial reconstructions

INTRODUCTION
Dr. Benoît Philippe is an oral-maxillofacial surgeon who received his MD degree from the Paris University, France, in 1987. He is an active member of many OMS associations and the author of many national and international communications and articles. He also has many different teaching responsibilities in France and abroad.

Dr. Benoît Philippe practices maxillofacial surgery and implantology in his private clinic in Paris (France). He specializes in pre-implant guided reconstructions and guided osteotomies. This specialization concentrates in implant bone reconstructions and in osteotomies of the maxilla and/or mandible using stereolithographic guides and custom-made titanium miniplates made from computer-aided virtual surgery in order to obtain the correct foundation for the orthodontic or implant projects.

Dr. Benoît Philippe is also consultant in the development of innovative technology in the field of computer-aided maxillofacial and implant guided surgery for more than 15 years.

ABSTRACT
Nowadays, digital technologies allow practitioners to locate more effectively cranio-maxillofacial skeletal abnormalities, and enable precise measurements to understand the specificities of each conditions. Furthermore, it is now possible to simulate and control surgical procedures, thanks to these digital tools, to achieve accurate results.

The indications which will be presented in the course of this lecture relate to reconstructive implant surgery indicated for the management of edentulous patients with bone atrophy and to orthognathic surgery for the management of patients with dento-maxillofacial abnormalities.

It is now possible to obtain predictable functional and aesthetic results thanks to this digital maxillofacial workflow which now belongs to the art of medical science.

The objective of this essentially clinical communication based on many representative cases is to present the benefits of these new technologies to both patients and practitioners and to explain the protocols of use.

This conference is intended for both implantologists, orthodontists and prosthodontists.

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Dr. Marco RINALDI, Italy
Bone Grafting and Reconstruction Protocols using 3D Technologies.

INTRODUCTION
Dr. Marco Rinaldi MD, DMD, works as Oral and Implant Surgeon in Bologna, Italy. He has developed clinical experiences using the 3D technologies in the field of Reconstructive Surgery. He has developed a series of surgical protocols and special Surgi Guides for sinus augmentation, bone grafting and zygomatic implants.

Dr. Rinaldi published some books and recently: Marco Rinaldi, Scott D Ganz, Angelo Mottola: Computer-Guided Applications for Dental Implants, Bone Grafting, and Reconstructive Surgery, Elsevier USA, 2016. This book was also translated into Chinese and Spanish.

ABSTRACT
As there are so many different reasons for bone loss in the maxilla and mandible, there is often limited bone volume for the placement of dental implants. Therefore the Implant Surgeon is at a crossroad: (1) bypass the obstacle using short or angled implants or; (2) reconstruct the bone defect to achieve the necessary bone height and width for implant placement. When making this choice it is also important to consider the state of the patient's health, age, medications, prior dental history, and the experience and surgical skills of the surgeon. Current surgical techniques can be divided into minimally invasive flapless surgery, or more invasive surgery requiring the elevation of flaps, and potential donor sites for bone grafting. Today's new diagnostic technologies that are based on CT/CBCT imaging modalities combined with interactive surgical planning software and stereolithographic anatomical biomedical models can create the actual size, shape, and duplicate of a patient's specific jaw-bone to study, plan, and simulate prior to the surgery. Using these technologies the reconstructive surgery will be more simple, fast and safer helping to choose the correct choice of surgical invasiveness. In fact, many times a more invasive reconstructive surgery allows us to place implants of appropriate diameter and length in a correct angle to coincide with the restorative requirements, and often with a better prognosis over time. We have defined a series of surgical protocols using these three dimensional technologies for Sinus Augmentation, Bone Grafting and Zygomatic Implants.

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Uli HAUSCHILD, Italy
Guided Esthetics: switching between virtual planning and reality

INTRODUCTION
Uli Hauschild is a dental technician from Germany and an expert when it comes to finding solutions to even very complicated cases in all fields of implantology and reconstruction. Uli’s favorite is computer guided, as he believes this technology offers the best tools to maximise the use of the patient’s existing resources. However, Uli also looks back on a broad scope of experience in traditional implantology. Uli and his team creates nature-close dentistry for clients in Europe, the States and also Dubai. His traditional technical experience as well as his state of the art knowledge makes him to a comprehensive partner for all implantology and reconstruction issues.

ABSTRACT
The application of computer technology and advanced 3-D imaging as applied to implant dentistry with the utilization of multiple interactive software applications makes it possible to create advanced designs that are multilayered, simultaneous, and precise, enabling true resource optimization. The design and production of complex treatment plans are carried out using a state-of-the-art digital workflow. The data-export procedure allows for simulation of optimal abutment positioning. The CBCT image data is used accurately position the implants within the desired envelope of the diagnostic wax-up allowing for the restorative data to be exported for CAD design and fabrication of the temporary restoration before the treatment on the actual patient has even begun. The analog / manual working steps in the laboratory is replaced by the digital workflow as made possible through advanced computer-aided processes.

Resource optimization using digital workflow has great advantages for both patients and the entire dental implant treatment teams. When it is possible to deliver an immediate-load restoration supported by sufficient dental implants, our patients can continue their lives with less psychological burden, and implant teams benefit from predictable operating procedures and efficiency. The craftsmanship of a competent dental technical specialist and the skill of a good dental surgeon when combined with 3-D pre-surgical planning can reduce operator and patient stress to a minimum, reduce patient morbidity, reduce surgical time, even when the operation must be relatively invasive.

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Dr. Philippe RIESTER, France

Computer Guided Immediate loading implantology.

INTRODUCTION

Philippe RIESTER has a private practice in France in Neuilly sur Seine. He is an opinion leader in guided surgery for several implant manufacturers, author of publications on guided surgery and passionate about innovations. He is a member of Peers France and of the French Society of Aesthetic Dentistry. It is through his encounters and exchanges, since Philippe Tardieu in the late 90s that he became interested in guided surgery, and more recently with his laboratory technician Renaud Malherbe, that he will present to you today an rational approach of rehabilitation of the complete edentulous.

ABSTRACT

The success of immediate loading in a complete edentulous can only be complete if the implants are laid out optimally, the prosthesis is perfectly adapted and meets the aesthetic and functional expectations of the patient. Guided surgery associated with Digital Smile Design, Transcutaneous Electrical Nerve Stimulation and optical impression techniques can achieve these objectives reliably and reproducibly. It is no longer a question of talent, but of respect for rules and processes that become interdependent. I will illustrate through clinical cases the interest of these different techniques and their complementarity in the service of a success for the practitioner and the patient.

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Dr. Matthieu GABRIELE, France

Day to day use of computer guided implantology. Does it give a protective net?

INTRODUCTION

Graduated from Strasbourg University, France, Dr. Matthieu Gabriele obtained a Prosthodontic degree in Brisbane (Australia), followed by a Prosthodontics/Implantology Post graduate degree in Nova Southeastern university, USA. He has been using software and guided surgery since 2010.

ABSTRACT

We witnessed over the years tremendous changes in oral implantology. Many protocols got simplified and new tools appeared to secure the techniques, both in surgery and restorative. Guided implantology is part of them. During this presentation, I will highlight the benefits, the ease of planning, the fantastic communication instrument that it gives us but as well the downfalls and the mistakes we can fall in easily. From pure hand placement to wax-up based stent towards 3D printed template… are we safer and safer?

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Dr. Eriberto BRESSAN, Italy
Guided surgery and conometric fixed prosthesis.

INTRODUCTION
Chairman of implantology and Periodontology University of Padua, Phd in biology and Molecular biochemistry, Director of Postgraduate Course of implantology at the University of Padua, Director of Research Center of methodology in dentistry at the University of Padua

ABSTRACT
Nowadays, dental implantology is a reliable technique for treatment of partially and completely edentulous patients. The achievement of stable dentition is ensured by fixed dental prostheses. Morse taper system can provide fixed retention between implants and dental prosthesis without cement or screw. This system presents advantages both for clinician and patients, in term of time, cost and biological point of view. This prosthesis is fixed for patient but easy to remove for dentist and this system could help to maintain the health of soft peri-implant tissue. Actually, also data on both in vitro and clinical performance of cone Morse retention are available, to confirm such trend on alternative of implant-supported restoration

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Dr. Roberto MARRA, Italy

Implant Guided transcrestal sinus lift: an alternative surgical protocol to lateral approach.

INTRODUCTION

1988: Graduate in Dentistry and Dental Prosthesis cum laude II University of Naples 1994: Postgraduate Course on Implantology at University of Naples “Federico II” 1995/2017 Visiting Professor of “Osseointegrated Implantology” at both Faculty of Dentistry in Naples and also teaching in postgraduate Master Class in University of Padova, Florence and Palermo and Catania 1998 Founder and Certified Active Member of Italian Association for Osseointegration (SIO) 2000 Mentor and Trainer of Branemark Implant System 2004: Graduate in Oral Surgery cum laude II University of Naples 2009-2010 Visiting Professor of Computer Aided Implantology at II University of Naples and University of Florence 2008 Visiting Professor of “Computer Aided Implantology” at II University of Naples and University Federico II of Naples 2006 Certified Member of CAI Academy (Computer Aided Implantology Academy) 2007/2016 Official Trainer Nobelguide\NobelClinician Procera Software 2007/2012 Board Member (General Secretary) of CAI Academy 2009/2010 Member of College of Treasurer of Italian Society of Osseointegration 2011/2012 Member of Board of Examiners for selection of Certify Active Members of Italian Society of Osseointegration 2011 ICOI Fellow in Chicago USA 2013 Editorial Board Member of International Magazine of Cone Beam Dentistry. (U.S.A) 2013/2014 Advisor and board member of Italian Society of Osseointegration 2014 Co-Author of Official Book Of Italian Society of Osseointegration published by EDRA chapter on” Computer Guided Implantology”. 2015-2016 Advisor and board member of Italian Society of Osseointegration 2016 Founder of Italian Academy of Osseointegration

PAPERS Authors of 57 scientific national&international publications.

SPEAKER more then 150 lectures at National and International Congress.

Private practice in Napoli and consultant of oral and implant surgery and of computer aided implantology

ABSTRACT

The closed sinus lift was first performed by Tatum in 1974 and later published by Summers in 1994 ; it is now known as the “Summers technique”. This technique involves a crestal incision. The sinus lining is lifted transcrestally using an osteotome. The procedure is considered minimally invasive, with patients experiencing less swelling and discomfort postoperatively compared with traditional open sinus lift procedures. The most common complication of the open sinus lift grafting is intra-operative perforation of the Schneiderian membrane. Reported perforation rates range from 20 to 44 per cent, whereas perforation rates for the closed sinus lift have been reported as 0 to 25 per cent. In addition, postoperative swelling and haematoma have been reported in 65 per cent of patients with an open sinus lift. Chen and Cha first described the hydraulic sinus floor elevation in 2005. Here, a 3-mm round diamond bur was used to start the osteotomy, the drill stopping about 1 mm short of the sinus floor. A 2-mm sinus bur was used to create a pinhole bore at the end of the osteotomy. Hydraulic pressure was applied to the osteotomy site by a high-speed air turbine handpiece to raise the Schneiderian membrane, followed by the condensation of grafting materials below the raised membrane.

This lecture describes a new technique for the hydraulic closed sinus lift using a specialized implant that has a built-in internal channel to act as sinus floor elevation device.

This internal channel facilitates the introduction of fluids and bone-graft materials through the implant body into a space beneath the Schneiderian membrane. It also allows a simultaneous sinus lift and full length implant insertion in a single procedure.

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Dr. Alessandro PALUMBO, Italy
Digital approach to immediate implantology: the solution for complex cases with bone atrophy

ABSTRACT

Complex cases of bone atrophy of the jaws are difficult to treat for any implantologist. Lack of residual bone and the difficulty of getting new bone live and stable over time is a problem for the dentist. Bone regeneration techniques are long, invasive, and with low successful success rates in short and especially long-term. Computer-assisted implantology is a valuable help as it allows sub-millimeter accuracy to maximize the residual bone of the patient. We speak of the inter foramina area of the jaw, the sects and walls of the maxillary sinus, the Pterigoid area, etc. The three-dimensional analysis of the amount of residual alveolar and basal bone obtained from CBCT examination and digital navigation techniques allow us to locate all the little bone available. In addition to this fundamental aspect, it is also possible to have a virtual planning of the intervention keeping in mind the position of future prosthetic teeth. Navigation software allows you to locate the inclination length and position of the implant using the maximum bone and keeping in mind the prosthetic emergency profile. The virtual project can be faithfully reported to the patient on the day of surgery through a stereolithographic surgical guide. This guide, if the steps are correctly performed, allows positioning the implant in the patient’s mouth exactly in the residual bone.

Getting that same position by working with a free hand would not be possible for the same surgeon. Furthermore C.A.I. allows these interventions to be minimally invasive quick and very well accepted by the patients. Almost always it is possible to load the fixtures immediately, allowing the immediate function of the prosthesis.

In this report, the author, who uses these methods since 2000, will exhibit atrophic cases of partial and total jaw with immediate loading of implants successfully treated with digital implantology. 15-year follow-up cases will also be shown.

Aim of the lecture (100 words maximum)
Show the surgeon and the laboratory technician how complex cases of atrophies of the jaw can be solved using Computer Aided Implantology. C.A.I.: ‘The simple solution for complex cases. Show clinical daily work of 15 with real clinical cases of unselected patients

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Dr. Firas HAMZEH, France

How to increase your clinical efficiency with Insignia braces.

INTRODUCTION

Dr. Firas Hamzeh had advanced knowledge in Orthodontic digital solutions. He has been trained in France, in Nantes University. Dr. Firas Hamzeh is recognized as an early adopter and advocate of innovative orthodontic systems including aligners and digital custom brackets INSIGNIA BRACES, in addition to being Key Opinion Leader for ORMCO and an international Ormco speaker. He is working in private practice in Dubai.

ABSTRACT

Insignia is a fully interactive software and custom appliance system designed to give every patient a truly customized smile. Insignia is the only system that delivers a complete custom solution - patient-specific brackets, precision (computer-assisted) bracket placement and custom wires to eliminate time-consuming adjustments in all phases of treatment. Insignia can make difficult cases more manageable and routine cases exceptional.

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Dr. Fabien DEPARDIEU, France

Digital orthodontics

INTRODUCTION

Dr. Fabien Depardieu is half French, half Italian. Italian mum... Studied dental surgery at Montpellier University in Southern France. Specialized in Orthodontics at Paris V University. Worked in private practice in Paris and London. Has been working in Dubai for 4 years. Invisalign diamond provider in 2016.

ABSTRACT

The three-dimensional(3D) digital technology has brought a revolutionary change in diagnostic planning and treatment strategy of orthodontics. Acquisition of 3D image data of the hard and soft tissues of the patients, diagnostic analysis and treatment prediction, and ultimately the individualized orthodontic appliance, will become the development trend and workflow of the 3D orthodontics. With the development of 3D digital technology, the traditional plaster model has been gradually replacing by 3D digital models. Meanwhile, 3D facial soft tissue scan and cone-beam CT scan have been gradually applied to clinical orthodontics, making it possible to get 3D virtual anatomical structure for patients.

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Prof. Dr. Vladimir KOKOVIC, Serbia

Workshop:
3D treatment planning and implant placement in the plastic model using surgical guide

INTRODUCTION

Dr. Vladimir Kokovic, DDS, MSc, PhD, Dubai (UAE);
Graduated in the Faculty of Dentistry, University of Belgrade, Serbia;
1998, Postgraduate program in Oral Surgery, University Belgrade, Serbia;
2001 Master of Science in Implant Dentistry, University Belgrade, Serbia;
2002-2003, Scholar of International team of implantology (ITI), University Zurich, Switzerland;
2007 PhD theses in Implant Dentistry, University Belgrade, Serbia;
Specialist of Oral Surgery, Advance Europe Medical Centre L.L.C., Sharjah, UAE;
Professor of Oral Surgery & Implantology, Maktum Bin Hamdan Dental University College, Dubai, UAE;
Visiting Professor Faculty of Dentistry, Pancevo, Serbia;
Academician of European Innovation Academy;
Academician of Serbian Innovation Academy;
2002 awarded as a “Innovator of year” Serbia;
Author of two patents (“Human deproteinized granular bone” & “Resorptive human demineralized membrane”);
Author of monographic “Vascularisation of bone substitute material” and more than 30 articles published in distinguished journals.

ABSTRACT

The world of images is coming into the dental practices. In the large number of cases dentists can hardly understand what kind of tools should be the best for them to integrate. Most of the systems are closed and protected by strong company monopolies. Dentists are guided about the implementation of these tools. AxisGuide® software program is an open program, it is a new and innovative suite of modules in the field of computer guided implantology and diagnosis (impacted teeth, tumors, nerve path…). AxisGuide® software includes 2 modules: Image for image treatment, Plan for implant planning.

Implant supported restorations start to be widely used therapeutic procedure for partial edentulous and edentulous patients. Our hands-on training will introduce participants with basic surgical principles in implant dentistry using surgical guide. The participants will practice planning and making incision for implant placement on model partial edentulous and edentulous upper & lower jaw.

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Dr. Anwar Hussain SHAIKH, UAE  
*Dynamic Computer Dynamic Guided Surgery in dentistry*

**INTRODUCTION**

Dr. Shaikh Anwar Hussain is working in the UAE. After his post-graduation, Dr. Shaikh gained his FDSRCS from the United Kingdom after being trained in St. Thomas Hospital one of the finest in London. Dr. Shaikh is a Consultant Oral Surgeon & Implantologist with a working experience of more than 25 years, mainly in the United Arab Emirates. He runs a specialized Dental Clinic in the Emirates of Abu Dhabi and enjoys a standing of high repute amongst his colleagues and patients. He is also the only Navident Clinical Tutor for the entire Gulf Region.

**ABSTRACT**

Dental Implant Surgery is surging forward by leaps and bounds internationally. We Implantologists want and strive to place Implants in perfectly accurate positions respecting the surrounding anatomy and at the same time considering the final restoration which have to be aesthetically and functionally acceptable. Dynamic Navigation in Implant Surgery is one of the modalities of Computer Aided Implantology procedure to guide the surgeon and it gets him or her to that one step further in the accurate placement of implants under direct vision on the laptop. The scope of this Presentation is to impress upon the delegates the 3rd eye approach to Implant placement. The Presentation will involve the "Introduction of Dynamic Navigation Surgery", the work flow of Navident and will be interspersed with audio visual information from the Speaker about the work flow. The Presentation will provide a good incite into Dynamic Navigation in Implant Surgery and it advantages.

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Gianni PERTICI PHD, Italy  
Biomaterials: A new generation of Bone Substitutes  

INTRODUCTION  
Chief Executive Officer & Founder of IBI-SA (Switzerland), Gianni Pertici was born in Pontedera (Pisa, Italy) in 1976, got his Master's Degree in Chemical Engineering at the University of Pisa and from 2005 to 2009 he performed his PhD in Biomaterials at the Dept. of Chemistry (University of Pisa) and at the King’s College of London. His studies were focused on processing engineering and material properties especially for biomedical field, but in recent years he acquired good knowledge also in the biological field, particularly in cell culture methods, in fact for several years he was R&D manager for the Swiss Stem Cell Bank. He is author in more than 15 publications, 2 books and single inventor of 1 patent. Currently he is also Reader at the SUPSI (University of Applied Sciences and Arts Southern Switzerland).

ABSTRACT  
Grafts for bone reconstruction should ensure both mechanical stability and strength. Moreover, their structure should have an adequate interconnected porosity for cell migration and proliferation, while also providing specific signals for bone regeneration. A composite solution, based on a novel concept of biomaterial assembly, bearing cues from both mineral components and polymeric ones, was here followed to develop a new three-dimensional bone scaffold. A bovine derived mineral matrix was used to provide adequate three dimensional structure and porosity, while a combination of resorbable polymers were used to reinforce it. Bioactive agent was added to promote cell colonization and proliferation.

Thanks to the very high performances of this material, SmartBone®, particularly its impressively higher mechanical properties with respect to the other bone substitutes, Industrie Biomediche Insubri SA (IBI, Switzerland) developed custom-made products “SmartBone® On Demand™”, solving single specific cases of bone reconstruction: starting from CT scan, IBI can provide the adequate substitute for every kind of defects.

Moreover, all data reported in previous scientific papers, indicate that SmartBone is osteoconductive, promotes fast bone regeneration, leading to mature bone formation in about 7 months. In conclusion, this technique permits a full complete restoration with custom made bone grafts.

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Dr. Maurizio MARTINI, Italy

Biomaterials: A new generation of Bone Substitutes

INTRODUCTION

Following his honour degree in dentistry at the University of Ancona, and a postgraduate degree a Master Il livello in IMPLANTOPROTESI IN ODONTOSTOMATOLOGIA at University of Roma, Dr Maurizio Martini attended several courses to develop his knowledge of Prosthetic Dentistry, oral surgery, Implant Surgery and Periodontology. In particular he attended a one-year course in Oral surgery given by Dr C.Clauser and Dr R.Barone, a two-year course in Parodontology by Dr P.Cortellini and Dr M.Tonetti who are two of the most important and accomplished practitioners of GTR and, a two-year course in advanced implant surgery given by Prof M.Simion, one of the pioneers of GBR. He has continuously increased his knowledge on bone regeneration and particularly about heterologous bone graft with custom-made products like “SmartBone® On Demand™” to be less invasive as possible in a so much invasive procedure. For the last 10 years he has almost exclusively dedicated his practice to implantology with a particular focus on immediate loading and bone regeneration, a subject on which he has lectured widely. Dr Martini has continuously updated his skills using the latest technologies, in particular 3-D Digital X-ray “CONE BEAM” and Piezo Surgery.

ABSTRACT

10 years since the clinical introduction of assisted computer implant surgery many of the initial concepts were supported scientifically and others contradicted or reinterpreted in a modern key. The euphoria related to flapless implant installation and the teeth in one hour concept has certainly fallen over time because it is not supported by strong clinical and scientific evidence. On this background we want to show results of ten years of classic computer assisted procedures and to focus on new protocols and clinical steps to obtain an Accurate prosthetic and aesthetically guided implant placement. Particular emphasis will be put on regeneration and reconstruction computer driven guides and the new concept of Computer Regenerated Bone Regeneration (CGBR). During the report will be shown clinical cases and educational videos.

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Luca CASALENA, Italy
Dynamic Computer Dynamic Guided Surgery in dentistry

INTRODUCTION
Luca is passionate about innovation applied to healthcare. He has contributed to launch new technologies applied to dentistry such as laser, computer guided implantology, and new CAD CAM prosthetic materials. He graduated “summa cum laude” in economics at La Sapienza di Roma University in 1988 and post graduated at Thunderbird the American Graduate School of International Management in 1998 where he received a Master in Business Administration (MBA). He has gained significant experiences in sales and marketing at corporations both in Italy and overseas, currently he works as a Regional Sales Manager for Canadian ClaronNav Inc.

ABSTRACT
Dental Implant Surgery is surging forward by leaps and bounds internationally. We Implantologists want and strive to place Implants in perfectly accurate positions respecting the surrounding anatomy and at the same time considering the final restoration which have to be aesthetically and functionally acceptable. Dynamic Navigation in Implant Surgery is one of the modalities of Computer Aided Implantology procedure to guide the surgeon and it gets him or her to that one step further in the accurate placement of Implants under direct vision on the laptop. The scope of this Presentation is to impress upon the delegates the 3rd eye approach to Implant placement. The Presentation will involve the “Introduction of Dynamic Navigation Surgery”, the work flow of Navident and will be interspersed with audio visual information from the Speaker about the work flow. The Presentation will provide a good incite into Dynamic Navigation in Implant Surgery and it advantages.

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Julian CALLANAN, UK
Innovations in Metal 3D Printing for Dental Implantology

INTRODUCTION
Julian Callanan is the Founder and Managing Director of Sinterex 3D Printing Manufacturing LLC. Sinterex specializes in 3D printing for dentistry and was the first company in the UAE to have commercially deployed metal 3D printing technology.

Julian has a background in Oil and Gas, where he worked in various consulting, management, and business development positions until his passion for 3D printing led him to starting his own business. Julian has a BSc Politics with Economics from the University of Bath, UK, and also an MBA from Cass Business School, London.

ABSTRACT
The dental industry has been one of the fastest and most successful adopters of 3D printing technology. Resin based 3D printing is now used widely for the production of patient models and is all but replacing the traditional plaster model. Metal 3D printing is perhaps less well known, but is also growing in popularity and indeed is now the fastest growing 3D printing technology. Implantologists can use metal 3D printing in several ways to improve patient outcomes and increase the speed at which they can treat patients. This includes metal 3D printing frameworks for PFM restorations, printing Removable Partial Dentures as an alternative to an implant, and printing metal Surgical Guides to improve the speed and accuracy of surgery. This lecture will update the attendees on all of the latest innovations which metal 3D printing is supporting and provide a level of understanding to support the listeners to deploy these techniques in their own practices.

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Prof. Silvio MELONI, Italy

*Computer Guided Bone Regeneration: improve esthetic and function in severe atrophy.*

**INTRODUCTION**

Prof. Silvio Meloni is adjunct professor of Periodontology at Sassari Dental School, Italy. His clinical practice is focused on Guided Bone Regeneration and soft tissue management when treating challenging cases. Prof Meloni is author of several papers on impacted Journals.

**ABSTRACT**

10 years since the clinical introduction of assisted computer implant surgery many of the initial concepts were supported scientifically and others contradicted or reinterpreted in a modern key. The euphoria related to flapless implant installation and the teeth in one hour concept has certainly fallen over time because it is not supported by strong clinical and scientific evidence. On this background we want to show results of ten years of classic computer assisted procedures and to focus on new protocols and clinical steps to obtain an accurate prosthetic and aesthetically guided implant placement. Particular emphasis will be put on regeneration and reconstruction computer driven guides and the new concept of Computer Regenerated Bone Regeneration (CGBR). During the report will be shown clinical cases and educational videos.

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Dr. Khaled EKRAM, UAE

*Innovations in Metal 3D Printing for Dental Implantology*

**INTRODUCTION**

Dr. Khaled Ekram is the Co-owner and Director of the Ekram Imaging and Digital Dental Centers in the Middle East. He is a Professor of Dental Radiology and has over 15 years of experience as a Dental professional.

**ABSTRACT**

The dental industry has been one of the fastest and most successful adopters of 3D printing technology. Resin based 3D printing is now used widely for the production of patient models and is all but replacing the traditional plaster model. Metal 3D printing is perhaps less well known, but is also growing in popularity and indeed is now the fastest growing 3D printing technology. Implantologists can use metal 3D printing in several ways to improve patient outcomes and increase the speed at which they can treat patients. This includes metal 3D printing frameworks for PFM restorations, printing Removable Partial Dentures as an alternative to an implant, and printing metal Surgical Guides to improve the speed and accuracy of surgery. This lecture will update the attendees on all of the latest innovations which metal 3D printing is supporting and provide a level of understanding to support the listeners to deploy these techniques in their own practices.

**E-MAIL**

khaledmekram@yahoo.com
MODERATORS

Prof. Ahmed EL-SERAFl, Egypt
Graduated from Ain Shams University in 1982 and joined the Radiology Department at its hospital where he worked till 1994 receiving Radiology Master of Science Degree (MScR) in 1986 and Radiology Doctorate Degree (PhD) in 1990. Currently holds the posts of Professor of Radiology at Suez Canal University (Egypt).

Prof. Dr. Vladimir KOKOVIC, Serbia
Specialist of Oral Surgery and PhD theses in Implant Dentistry University of Belgrade; Professor of Oral Surgery & Implantology, MBHDUC, Dubai, Academician of European Innovation Academy, Author of more than 30 articles.
**Dr. David ROZE, France**

is a French Oral surgeon and Specialist in Implantology. He graduated from Rennes Dental University. He did his internship specialised in oral surgery in Lille and his implantology degree in Paris. Over the years, he won several awards for his research and clinical work. In Dubai since 2003, Dr. David founded Dr. Roze and Associates Dental Clinic bringing together international dental experts. Dr. David Roze has extensive experience in implant surgery with hard and soft tissue grafting procedures. He also emphasizes interactive CAD-CAM technology along with foundational principles of prosthetics and biomechanics that dictate the ultimate success of comprehensive implant rehabilitation.

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**Prof. Çetin SEVÜK, Turkey**

Prof Dr Çetin Sevük graduated from Istanbul University, Faculty of Dentistry in 1974. He completed his post-graduate course and obtained his PhD degree in the Department of Fixed Prosthodontics at the same university in 1979. He was promoted to associate professor in 1988, and professor in 1996. Prof Dr Çetin Sevük is the president of the Turkish Society of Prosthodontics and Implantology (TPID), board member of European Prosthodontic Association (EPA) and also an active member of Computer Aided Implantology Academy (CAIA) active member of International Academy for Digital Dental Medicine (IADDM), active member of Digital Dentistry Society (DDS). He has numerous researches about all ceramic restorations and inlay restorations.
General Information

MEETING VENUE
Novotel Al Barsha
Address: Sheikh Zayed road, Al Barsha 1
Dubai, UAE

CME ACCREDITATION
Italian Cme accreditation will be provided.

CERTIFICATES OF ATTENDANCE
Certificates with the number of attended hours will be made out to all Participants at the end of the Meeting.

OFFICIAL LANGUAGE
English is the official language of the Meeting. No simultaneous translation will be provided.

REGISTRATION

- **ACTIVE MEMBER**
  (updated with your annual membership): .......................................................... € 100,00
  *The registration fee includes:*
  • lectures and Workshops
  • access to the exhibition area
  • catering facilities
  • CME Credit

- **MEMBER AND AFFILIATE MEMBER**
  (updated with your annual membership): .......................................................... € 150,00
  *The registration fee includes:*
  • lectures and 2 Workshops
  • access to the exhibition area
  • catering facilities
  • CME Credit
NON MEMBER: € 250,00
The registration fee includes:
• lectures
• access to the exhibition area
• catering facilities
• CME Credits

WORKSHOPS: € 100,00 each
(you can attend up to 2 workshops)

DISCOUNTED RATES AFI MEMBER / IAMMD MEMBER / IAO MEMBER: € 150,00
The registration fee includes:
• lectures and 2 Workshops
• access to the exhibition area
• catering facilities
• CME Credits

HOTEL ACCOMMODATION
An allotment of rooms has been reserved for the Meeting delegates at special discounted rates

SOCIAL PROGRAMME
The social programme includes the Gala Dinner (October 27, 2017) and tours to visit some of the main attractions of Dubai and surroundings.

HOW TO REGISTER
For registration, hotel accommodation and social programme please visit www.caiacademy.org.

LIABILITY
The Meeting fees DO NOT include provisions for the insurance of participants against personal injuries, sickness and theft or property damage. This also applies to any event held during the Meeting period. Participants and accompanying persons are advised to arrange for insurance they consider necessary. Neither the CAI Academy, nor the Organizing Secretariat assume any responsibility for loss, injury or damage to persons or belongings, however caused. Delegates should make their own arrangements with respect to personal insurance.