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Assoc. Prof. Dr. Lucian Toma Ciocan, PhD, DDS, DMD, Bucharest (RO)

Prosthodontist's Challenges in Multidisciplinary Treatments. Debate on Clinical Cases

## Abstract

In this conference it will be staged and debated on different clinical cases, the role of the prosthodontist in multidisciplinary treatments. Starting with dental history, anamnesis, and clinical exam the primary role of the prosthodontist is to gather the information from the other specialists, members of the team, to complete a comprehensive diagnosis and to decide which are the treatment options for every patient. Knowing the power and limits of the other specialists, on one elected treatment option, the prosthodontist must establish the treatment steps and the timing for other specialist performances. During the treatment journey, one important responsibility for the prosthodontist is to assure the patient functional and psychological comfort, by electing adequate provisional solutions. Nevertheless, at the end of multidisciplinary treatment, it is preferably to have minimum of space restored prosthetically. As it will be emphasized of different clinical cases, prosthetic compensations are, in fact, prosthetically compromised solutions, proportional with the magnitude of space that needs to be "restored".

### CV

Dr. Ciocan (DOB: December 8, 1976) is an educationist, researcher and specialist in dental materials and dental technology. He received his Dental Diploma from "Carol Davila" University of Medicine and Pharmacy, Bucharest, 2002. Between 2002 and 2005 he graduated the Oral Surgery specialization. After receiving his DMD completed the Master Program in the Biomaterials field in the Bucharest Polytechnic University (2004) and PhD thesis "Interface Studies regarding Endoseous Implants Biointegration" in University of Medicine and Pharmacy of Bucharest (2011). In 2012 Graduated the 2yrs Linhart Continuing Educational Program: Current Concepts in American Dentistry-Aesthetics and Oral Rehabilitation, NYU Faculty of Dentistry, having the dissertation entitled "Biomechanical aspects of implant dentistry". From 2002 until present he activates in the Department of Prosthetic Technology and Dental Materials of "Carol Davila" University of Medicine and Pharmacy in Bucharest and since 2019 he is the Head of the Department. He clinically practices full mouth prosthodontics rehabilitations in Nicolescu-Agatstein Dental Clinique from Bucharest. Dr. Ciocan has numerous publications, an inventing patent and many awards received at national and international conferences. He is member in international and national professional societies: Affiliate of the European Academy of Esthetic Dentistry, International Team for Implantology ITI, Honour Member of Romanian Prosthodontist Society, Romanian Society of Biomaterials, Romanian Center of Dental Education. Research interests: (1) materials in dental medicine; (2) dental digital technology; (3) dental robotics; (4) prosthodontics.



Dr. Peter Gerhke, Priv.-Doz. Dr. med. dent. habil., Ludwigshafen (DE)

Implant Prosthodontics between Digital Demands and Analog Reality: Current Concepts, New Approaches and Key Factors for long-term Success

## Abstract

Dental implants are designed to provide support, stability, and retention for superstructures. In addition, implants have evolved to enable optimal esthetic and functional outcomes for patients seeking dental rehabilitation for a variety of indications. With innovations in implant technology continuing to rapidly advance, maintaining knowledge of all the latest developments can be challenging for clinicians. Despite the predictable longevity of implants, there is an ongoing interest to improve the implant restorative treatment and outcome. Along with new implant macro designs for optimal stability in different bone qualities, there are recent developments involving the use of computer-aided design and computer-aided manufacturing (CAD/CAM) to fabricate implant abutments and frameworks from metal, ceramic or polymer materials. Intra-oral scanning and optical digitizing of master casts will prosthetically extend the scope of abutment and restoration fabrication in removable and fixed prosthodontics. Custom abutments and restorations of different materials can now be designed more predictably to restore the desired alignment and morphology. The presentation will emphasize the coordination between the restorative team and the laboratory and critically evaluates the rationale of a digital workflow in implant dentistry. It will highlight the natural symbiosis of a functional implant design and esthetic treatment approach, considering novel techniques and their material aspects.

## CV

1986-1991: Graduate studies at University of Berlin School of Dental Medicine, Germany

1991: Approbation as dentist

1991-1995: Dental residency

1992: Doctorate / Dr. med. dent.

1995-1996: Postgraduate studies at New York University College of Dentistry, Restorative and Prosthodontic Sciences Department of Implant Dentistry, USA

1996-2005: Scientific Consultant FRIADENT GmbH, Dentsply Sirona Implants, Mannheim, Germany Since 2005: Restorative associate in private practice, limited to implant dentistry and oral surgery, Prof. Dr. Dhom & Colleagues, MVZ GmbH, Ludwigshafen, Germany

Since 2006: Part-time faculty at Steinbeis-University, Berlin, Germany, Master of Science in oral Implantology and Periodontology

Since 2018: Part-time faculty and senior lecturer at Johann Wolfgang Goethe-University, Frankfurt/ Main, Germany, Department Master of Oral Implantology

2021: Postdoctoral lecture qualification / Habilitation: Appointed as "Privatdozent" at Johann Wolfgang Goethe-University, Frankfurt/Main, Germany

Textbook: Co-Author "Fundamentals of Esthetic Implant Dentistry" (Blackwell Publishing) Publications: >30 papers in peer-reviewed impact journals



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Dr. Maxim Jaisson, DDS, MSc, PhD, Challes-les Eaux (FR)

4D Dentistry. New Digital Dentistry driven by 3D Modelling, Jaw Motion and Dynamic Occlusion

### Abstract

New technologies and digital workflows are nowadays guiding the way we deal with every field of dentistry. The way we look at our cases is deeply changed due to the possibility of digitizing our patients in a more complete way.

Digital toolboxes delivered with the scanners offer the chance to visualize plans ahead of time before applying them in reality. All our procedures are nowadays assisted digitally. The objective is to reduce invasiveness in dentistry and at the same time to offer better treatments to our patients.

## CV

Dr. Maxime Jaisson was graduated from the Reims Champagne Ardennes University in 2006, where he also appointed as clinical assistant at the Dept. of Prosthodontics. He continued his studies through different Masters in Science that allowed him to discover new odontology concepts in association to engineer technologies. His works in the fields of biomechanics and digital maxillofacial prosthetics also allowed him to complete his second doctorate in science in 2012. In addition, he expanded his knowledge in CAD/CAM systems thanks to different exchanges with other digital specialists, particularly during the area meetings of which he has been served 3 times as President. Currently, he is working as dental surgeon in Challes-les Eaux in France and shares his activity as entrepreneur within the Modjaw company of which he has been co-founder together with his cousin Mr. Antoine Rodrigue. He is also an invited lecturer in different Universities, international events and conferences such as ADF or the French College of Occlusodontology. Anxious to change the practice of his profession, he likes to transmit his expertise on the topics of the management of digital occlusion, but also in the global occluso-prosthetic approach of patients.



Prof. Dr. Jaime Jimenez, DDS, PhD, Madrid (ES)

Managing Complications from Poor Treatment Plan

### Abstract

Digital implant dentistry is something that all clinicians have on mind, but most of them still believe it is something with so many limitations that they are not convinced to use it.

Restoring patients with implant is one of the most challenging area in dentistry, specially in the anterior area. The applications of various technological advances in implant dentistry and in all aspects of the diagnostic, treatment planning, surgical, and restorative phases are gaining popularity. Computer-aided design/computer-aided manufacturing (CAD/CAM) technology are used to generate stereolithographic surgical guides and prefabricated interim prostheses to facilitate implant surgery but there are still some clinical questions in terms of where are the limitations and possibilities for the clinician, in the use of intra- oral scanner, specially when treating full arch cases.

This type of digital devices nowadays can reduce the number of surgeries, giving better prognosis, resulting in shorter treatment times, thus better patient satisfaction. Due to advances in technology (diagnostic tools and imaging) but also our understanding of biological mechanisms, the enormous amount of research in the field of aesthetic implant dentistry, as well as the advances in the diagnostic tools, has led to a completely different era regarding dental extraction and replacement of missing tooth. Implant dentistry will always be benefit by a teamwork approach, creating a great communication between all the participants of the different areas in dentistry. During the presentation, different clinical scenarios and an evidence-based update in digital implant dentistry will be covered, with the indications and contraindications; as well as the different steps in the clinical surgical and prosthetic procedures.

# CV

Dr. Jaime Jimenez Garcia received his DDS degree from the Complutense University of Madrid, Spain. He went for post graduate studies to New York University, where he stayed two years getting the certificate on "Perio and Implant Dentistry" directed by Prof Dennis Tarnow. One year later, he received the 3rd award "New York University College of Dentistry Student Research Competition held".

For four years he served as Partial time Professor on the Implant Department at the European University of Madrid, where he is currently the Chairman of the Department.

Nowadays he is a visiting Faculty and International Program Director for Oral Implantology (European University of Madrid, Spain), Continuing Dental Education Programs of the New York University College of Dentistry. He is currently at the same university Assistant Professor at the department of Periodontics and Implant dentistry.

He has lectured worldwide in over 15 countries recently (France, Germany, Italy, Spain, Brasil, Peru, Korea, China, Japan, USA, etc.) at international meetings on the field of implant dentistry. He is member of various National and International societies (SEPES, SEPA, AO, EAO, AAP). His activities, both in Clinical Practice and Clinical Research cover the field of Oral Implantology as well as implant Prosthodontics.



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Dr. Marco Martignoni, DDS, Rome (IT)

Digital Dentistry: How is the flow influencing our practice?

### Abstract

New technologies and digital workflows are nowadays guiding the way we deal with every field of dentistry. The way we look at our cases is deeply changed due to the possibility of digitizing our patients in a more complete way.

Digital toolboxes delivered with the scanners offer the chance to visualize plans ahead of time before applying them in reality. All our procedures are nowadays assisted digitally. The objective is to reduce invasiveness in dentistry and at the same time to offer better treatments to our patients.

# CV

Marco Martignoni is graduated with honors in 1988. Post-doctoral course on Cranio Mandibular Disorders at University of Cagliari. Continuing education at Henry Goldman school of Dental Medicine, Boston University USA at Dr. Herbert Schilder's department. He followed continuing education program with Dr. Cliff Ruddle in Santa Barbara, California USA. He leads a private clinic in Rome, Italy and dedicates his practice to endodontics and endo-restorative procedures, aesthetic restorative and implant supported prosthetics including pre restorative alignment and TMJ disorders using full digital workflow. He is past-president of the Italian Society of Endodontics. Has been president of the congress ESE-Rome 2011 (European Society of Endodontology). He is founder of the Italian Academy of Microscopic Dentistry and honorary member of the French Society of Endodontics. He is founder of the SIPRO Italian Society of Prosthodontics. and Oral Rehabilitation. Visiting professor at the International Master in Endodontics and Restorative Dentistry, University of Siena.



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Dimitris Papadimitriou, DDS, Athens (GR)

Hard and Soft Tissue Mutual Relationships for pleasing Esthetics around Teeth and Implants

### Abstract

The odontogenic complex in order to provide a pleasant esthetic result requires that the teeth, gingiva and underlined bone have to follow and match each other's like being one entity. When a clinician is asked to provide treatment to a patient due to different abnormalities, he has to respect this rule irrespective if he deals with teeth or dental implants. Nowadays, a surgeon has the luxury to select among different surgical techniques and biomaterials, the ones that will provide to the patient a final result as close as possible to a natural looking dentition. Especially, when a tooth is missing and the hard tissues (tooth, bone), as well as soft tissues are going to be restored, emphasis has to be given to the appropriate dimensions, shapes, proportions, and color that they should follow in the end. This presentation is going to focus from a surgical point on how the aforementioned goals are met in clinical situations of both resective and regenerative procedures around teeth, but also in deficient alveolar ridges that will support future dental implants.

## CV

Dr. Dimitrios Papadimitriou graduated from School of Dentistry, University of Athens, in 2006. During 2008-2011, he received specialty training in Periodontics and Implants at the Eastman Institute for Oral Health, University of Rochester, NY. The following year he was awarded the International Team for Oral Implantology (ITI) Scholarship, where he continued his training in Prosthetic Implantology at the Department of Restorative Dentistry and Biomaterials Sciences, Harvard School of Dental Medicine. Dr. Papadimitriou is a Diplomate of the American Board of Periodontology since 2012. He is currently part time Adjunct Clinical Assistant Professor at the University of Rochester. He lectures nationally and internationally and has published articles in international dental journals. His private practice is limited to Periodontics and Implants.



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Dr. Carlo Poggio, DDS, MSc, PhD, Milano (IT)

Feather Edge Preparations for Zirconia Restorations in Full Digital Workflow

### Abstract

Tooth preparations without a defined finish line have been termed in several different ways, such as vertical, or shoulderless. Last GPT defines "feather edge" as a preparation without a visible reference (different from "knife edge") with slight differences between each other, all these preparation types may be defined "vertical" as opposed to "horizontal" (shoulder, chamfer) and since the introduction of metal ceramics they have been almost abandoned with limited exceptions (i.e. periodontally involved abutments). From a biological standpoint, preserving a maximum amount of sound tooth structure, as it is done in these types of preparations, might also offer a more conservative alternative to a horizontal margin design in other clinical conditions such as endodontically treated teeth, vital teeth in young individuals, or teeth affected by caries at the cervical third. Vertical margins on zirconia crowns have been tested in vitro and clinical reports have been published. An evaluation of possible advantages of vertical preparation design in prosthodontics, especially in full digital workflows, will be presented in light of existing literature as well as over 15 years of experience.

Course Objectives:

1. Define geometrical and biological characteristics of vertical preparations as compared to horizontal ones.

2. Analyze current in vitro literature and available clinical data regarding zirconia and vertical preparations

3. Evaluate advantages of feather edge preparations in full digital workflow

### CV

Dr. Carlo E. Poggio holds a DDS, a PhD in Anatomy and a MSc in Orthodontics. After completion of academic studies he underwent individual clinical training in Prosthodontics, Implant and Perio surgery. Visiting Professor at the Division of Prosthodontics, Eastman Institute for Oral Health, University of Rochester (NY) (2009-present), Visiting Professor for Interdisciplinary Treatments at the Postgraduate Program in Orthodontics in the University of Milan (2000-2012; 2015-2019), Visiting Professor in Prosthodontics at the Dental School of the University of Siena (2016-2019). Fellow of the Academy of Prosthodontics since 2016 and International Member of the American Prosthodontics Society since 2010. Founding member of the Italian Society of Prosthodontics (SIPRO). Past President (2019-20) of the Italian Academy of Prosthetic Dentistry (AIOP). He has achieved Active Membership of the Italian Academy of Prosthetic Dentistry (AIOP) in 2003, of the Italian Society of Orthodontics (SIDO) in 2003 and of the Italian Society of Periodontology and Implantology (SIdP) in 2012. He is currently member of the Executive Board of APS and President Elected (2024) of APS.



() Giuseppe Romeo, CMDT, Turin (IT)

Technical Diagnostic and Esthetic Approach

### Abstract

Great improvements have been made in the field of esthetic restoration in the last few years. This evolution derives not only from esthetic requirements of the patient, but also from a good relationship between the dentist and the dental technician. The clinician should know technical steps to make the process easier the imagination of the technician and the laboratory should know the clinical operative steps with the possible difficulties in the mouth, so that the technician can develops more techniques to help the dentist in his work. In this way it is possible to plan the case that will also give to the patient the possibility to perceive and understand clearly the treatment proposed.

Technically the numerous possibilities for anatomical tooth reproduction will be examined. A new system that will enable dental professionals to go beyond the usual creative standards in esthetical rehabilitation: the principal tooth forms and their characteristics will be analyzed and the discussion will lay groundwork for the introduction of a new tooth-form classification called Dental Anatomical Combination.

Comparing to the face of the patient several factors will be evaluated when designing an individual customized dental restoration. Other new digital systems will be evaluated in order to create an individual tooth shape for the patient and the subsequently customized smile. The application of this new system and subsequently ceramic layering procedures will be demonstrated via a clinical case report. All the rehabilitations simple or complex are created with precision using the stereomicroscope to achieve the planned result and increase the longevity of the restoration.

The objective of this topic is to provide valuable information to support the prosthodontic team in the treatment of the various clinical cases. Detailed analysis of the most significant clinical and technical procedures will be described, beginning with the clinical diagnosis and subsequent diagnostic wax up, then progressing to the correct use of the provisional restorations, which are fundamental in the conditioning and correct development of the soft tissues, as well as in the achievement of the functional and esthetical objectives.

### CV

Born in Port Chester, New York, USA. Owner of the Oral Design Center in Turin, Italy.

Trained in dental technology in Turin, Italy, he then studied two years at the University of Geneva.

He completed his education in Italy and abroad, working in the United States and in Switzerland.

He has published extensively in both Italian and international journals. He has also contributed to the textbooks "Esthetics and Precision. Clinical and Technical Procedures" with Dr. Domenico Massironi and Mr. Romeo Pascetta (translated in eight languages), and "Aesthetic & Restorative Dentistry" written together with Dr. Douglas Terry and Mr. Willi Geller.

Both books are published by Quintessence Publishing. He is involved as Associate Editors in Dental Technology of the International Journal of Esthetic Dentistry (IJED).

He belongs to several prestigious organizations, such as the Oral International Foundation, the American Academy of Esthetic Dentistry (Fellow Member), the European Academy of Esthetic Dentistry (Active Member), the Italian Academy of Esthetic Dentistry (Active Member), the European Society of Cosmetic Dentistry (Active Member), the European Academy of Digital Dentistry (Executive Council Member) and the American Microscope Enhanced Dentistry (Fellow Member).

He was Clinical Assistant Professor in the Division of Restorative Science at the University of Southern California, Los Angeles, USA.



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Prof. Dr. Susanne Scherrer, DDS, DMD, PhD, Geneva (CH)

Zirconia Connector Failures: Lessons to learn

### Abstract

Early failures due to fracture of fixed dental prosthesis made of "monolithic" zirconia have to be critically analyzed. The recovered broken parts can inform the practitioner and the laboratories about the cause of failure and alert them to the critical design parameters and surface treatment to address to ensure future success. This presentation will follow through an investigation of a series of actual clinical cases examining the retrieved fractured portions of "monolithic" zirconia FPD using the scientific tool of fractographic failure analysis. These cases will highlight issues related to zirconia material science, lab processing, design, surface treatment and the important lessons that can be learned from such premature fractures.

## CV

Professor Susanne Scherrer received her D.D.S (1984), her doctorate (1986) and her Privat Docent (2003) from the University Clinics of Dental Medicine, University of Geneva, Switzerland.

She is Full Professor in the Division of Fixed Prosthodontics - Biomaterials, Head of Biomaterials and Head of Continuing Education. Prof. Scherrer is the current President of the University Clinics of Dental Medicine (2022-2025). She is a Fellow of the Academy of Dental Materials and of the Academy of Prosthodontics. She has served as President of the Academy of Dental Materials (2002-2004) and President of the Dental Materials Group of the IADR (2001-2002). In 2014 she was awarded the IADR-Distinguished Scientist Wilmer Souder Award from the IADR-Dental Materials Group.

Her primary area of research and publishing involves dental ceramics, mechanical properties, clinical longitudinal trials and failure analysis using fractography. She has worked as a general practitioner from 1984 until 2015 in extramural family private practices half of her time. She currently serves on the Editorial Boards of the JADA Foundation Science, the JDR and the Swiss Dental Journal.



Dr. rer. nat. Felix Wörle, Hamburg (DE)

Almost magic: Making White Spots disappear as if they never existed

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