

core

Contemporary Oral Restorative Education



## A new dawn in dentistry

Fifteen years after the birth of the biomimetic revolution, the course of adhesive dentistry has been changed forever. Now a new and perhaps more evolved movement is beginning to take shape—we call it bio-emulation!

The term “bio-emulation” was coined and subsequently trademarked and constitutes a compound term, the prefix from the Greek word “bios” [life] and the suffix from Latin word “aemulus” [rival], in order to better describe the contemporary philosophy of restorative intervention and adhesive reconstruction of teeth. The driving force of the concept is to perpetuate the general oral health of the patient by proactive methods of prevention and systematic maintenance of the dentition. However, when we are forced to intervene, only when we are challenged to be reactive, our philosophy is to rival nature, both optically and functionally through evidence-based, commonsensical and proven scientific techniques.

In the Bio-Emulation Group, like-minded individuals were drawn into closer contact and collaboration on a global scale, forming a synergistic relationship between individuals imbued with the common spirit of progress, with similar ideas and ideals forging a profound bond.

This collective, organic collaboration was the brainchild of the three founding members, Dr Panos Bazos, Dr Javier Tapia Guadix and Dr Gianfranco Politano, and conceived in 2011. Ever since, the international Bio-Emulation Group has dedicated its efforts to gaining a deeper understanding of the mechanical and optical properties of natural teeth and to seeking ways to adapt this knowledge to existing techniques and materials. This includes the development of practical aids, as well as theoretical concepts. Scientific research, and clinical and technical realities provide the foundation in the quest for perfection. The concept of biomimetically emulating nature utilizing a histo-anatomical approach through structural analysis and visual synthesis has led to the development of additional technologies that are available to the dental public, such as polar\_eyes and visual\_eyes, just a few innovations that have arisen from the intense collaboration between like-minded enthusiasts and friends.

But bio-emulation stands for more than merely promoting advancements in dentistry and dental technology: It embodies the fusion between both dental areas, the clinical and the technical, more than any other movement today. For the first time, clinicians are learning to acquire skills to realize intricate morphological details, as well as polychromatic layering techniques that have their origin at the dental laboratory bench. At the same time, dental technicians have begun raising questions never asked before and conducting scientific research under the guidance of their clinical peers in order to either validate the usefulness of conventionally established techniques or debunk them. In order to disseminate this philosophy, the international Bio-Emulation Group has developed a unique accreditation course: The Contemporary Oral Restorative Education program, which consists of different modules that upon completion qualify the candidate for an examination to gain entry into the Bio-Emulation Group as an affiliate member.

Accompany us on a magical journey where science liberates the mind, where convention is challenged, where expectations are surpassed, where contemporary designs thrive, where technical excellence is paramount, and where nature is revered and faithfully emulated.

Javier Tapia Guadix  
DDS, CG Artist  
President of Bio-Emulation

Sascha Hein  
MDT  
President of Bio-Emulation

expose

2 days



demystifying photography

## theory

- Revisiting Essential Concepts in Dental Photography
- Choosing the Optimal Equipment
- Optimising Capture Settings
- Unleashing the Power of RAW
- The Photography as a Duality: capture + processing
- Color Calibration and Photo Standardization Tools
- Advanced Photographic Techniques Powered By Bio-Emulation™
- Essential Processing with Adobe Lightroom
- Advanced Processing with Adobe Photoshop
- Studio Photography





Dental photography has become a standard in dentistry for different applications including case reference (before/after), color analysis, morphology analysis, orthodontic study, esthetic analysis, phonetic tests, patient communication and communication with dental laboratory.

Even though modern cameras allow for a full automated process of taking pictures, they do not fulfill our expectations on achieving the image quality we consider as a standard. Mastering dental photography requires some extended knowledge over the simple "point and shoot" action, in order to release the full potential of the modern digital reflex cameras.

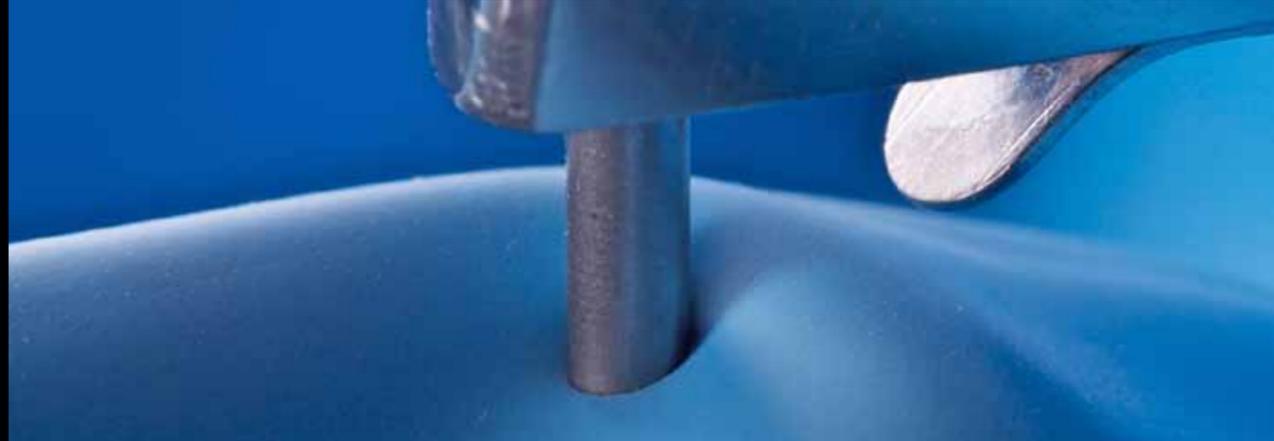
The objective of this course is to review the basics of digital dental photography in a simple way as well as learning advanced techniques that will empower us to become professional dental photographers, setting up a new standard on our dental photography outcome...

isolate 



javiertapiadds  
saschaheinmdt

2 days



# theory

- Instrumentation and Material Requirements
- Cost/Benefit Analysis of Isolation
- Criteria for Optimising Isolation Techniques
- Rational Strategies and Tactics to Isolate Under All Situations
- Mastery of the Isolation Technique
- Development of Critical Skills to Creatively find New Solutions
- Isolation Mind-Map and Workflow
- The paradigm shift of Microscopy
- Amplifying Visual Detection
- Crackmania; the story that will crack you up
- Vital Pulp Therapy
- Fibers Inc.

demystifying isolation





"Probably no other technique or instrument used in dentistry is so universally accepted and advocated by the recognised authorities and so universally ignored by the practicing dentist " (Ireland L. The rubberdam: Its advantages and applications. Texas Dent J 1962; 80: 6-15)!

Since its introduction in 1864 the presumed use of rubberdam in multiple dental procedures has increased. Nevertheless, in daily practice the use is not so widely spread as one would expect. Many reasons or excuses are being given not to use this simple means of isolation. The idea is simple, the practical execution is another story. Especially knowing that the use of rubberdam implies that we, as dental professionals, plan our work efficiently and that we are able to communicate well with our patients.!

It is without any doubt that during endodontic procedures and during adhesive procedures the use of rubberdam is mandatory. This course tells us also what is possible if we ask ourselves the question : what if...!

A thorough understanding of the bio-mechanical behavior of teeth, both sound and restored, on a macro and micro level will allow us to come forward with effective measures to save teeth and be less aggressive in our treatment proposals. A pro-active approach will be proposed, both for vital and non-vital teeth. The importance of early diagnosis, healthy strategy and skillful execution will be evident in this groundbreaking presentation.

High quality dentistry begins at the base of the pyramid. Join us for an exceptional experience where the foundation of quality treatment is learned in a fun and interactive way.



stephanebrowetdds  
davidgerdolledds

polymer

4 days



## theory

- Indications for Direct & Indirect Posterior Composite Restorations
- Bio-Material Selection Criteria
- Periodontal Conditioning
- Isolation Protocols in Synopsis
- Contemporary Instrumentation Modalities
- Caries End Points and Receptive Substrate Optimization
- Predictable Adhesive Strategies
- The Tri\_Laminar Stratification Technique via Bio-Emulation™
- Finishing and Polishing Protocols: Step By Step Rational Approach
- Occlusal Control and Considerations

the trilaminartechnique





When working in the posterior region, one needs to carefully consider time management and efficacy protocols by choosing a simplex, yet comprehensively sound direct adhesive approach. The tri\_laminar technique incorporates "check points" as regulatory mechanisms aiming in alleviating interfacial stress development by de-coupling dentin and enamel bonding stages.

The lack of standardization amongst dental restorative materials has led to a paradox of choice, which in turn has created several dichotomies with regards to the restorative strategies. Traditional VITA based shade selections are giving way to contemporary modalities, simplifying the selection at hand by utilizing single hue (A shade) multi-chromatic alternatives. The importance of shape and geometric configuration at different levels of detail along with the role of optimization in structural design is paramount. Deep understanding of morphologic variation is advantageous in recreating functionally sound operative restitutions.

One should faithfully strive to emulate the natural histo-anatomic dental archetype during the restorative approach. This lecture aims to provide a standardised simplex methodology by judicious material selection when implementing the universal triad, that of Enamel / Dentine-Enamel Complex (DEC) / Dentin with regards to a stratification modality that exhibits sound spatial ordering (convex enamel / concave dentin) whilst dealing with the direct and indirect composite resin placement in the posterior dentition.



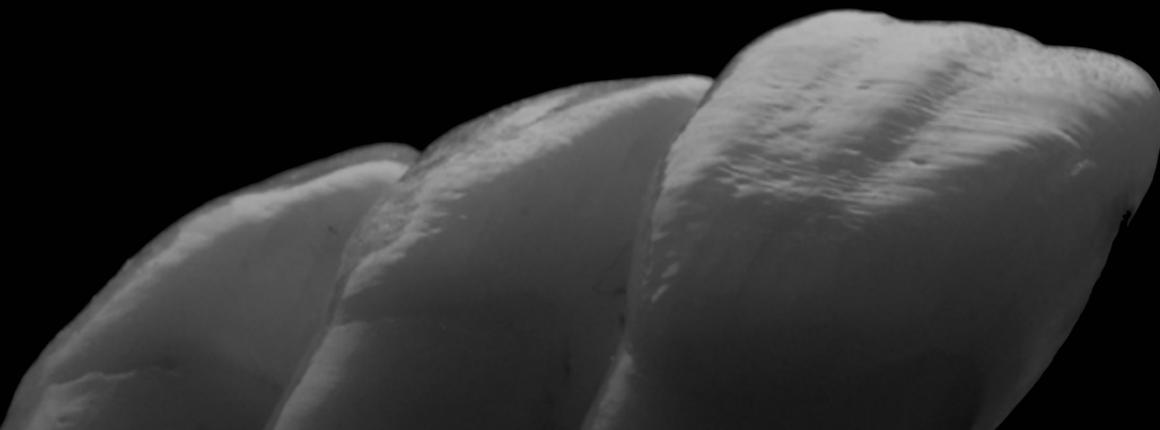
the pentalaminar technique



gianfrancopolitanodds

# theory

- Practical Conclusion From Structural Analysis and Visual Synthesis
- What Regulates Enamel Translucency and Dentin Opacity
- The Penta\_Laminar Stratification Technique via Bio-Emulation™
- Natural Examples of Different Ageing Stages in Anterior Teeth
- Histo-Anatomic Composite Shade Compatibility
- Conceptual Layering at Different Dental Maturation Stages
- Clinical Step-by-Step Cases of the Penta\_Laminar Technique
- Finishing, Contouring and Morphological Detailing - Form and Texture
- 360° in Depth Polishing Techniques - Longevity of Gloss and Luster



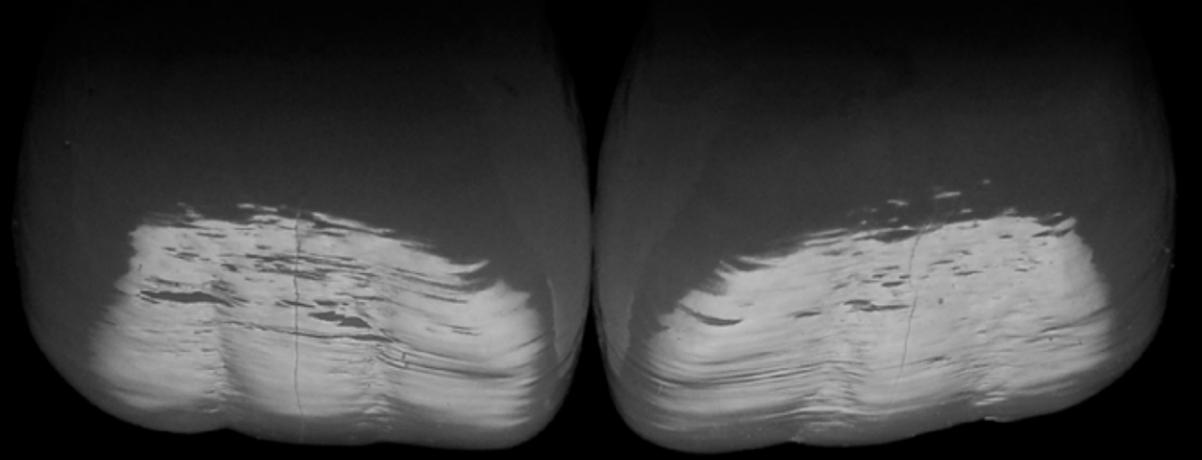
A thorough understanding of the spatial distribution pertaining to the histo-anatomic coronal structures and dynamic light interaction of the natural dentition provides the dental team with the ultimate strategic advantage with regards to optical integration of the final restoration.

Teeth form a complex optical medium for light as it passes through enamel, dentin-enamel complex and dentin. Furthermore, this behaviour evolves over years as tissues change and adapt in morphology and composition. Comprehension of histo-anatomic relations as well as dynamic ageing of tooth structures is essential to succeed when selecting the proper translucency, value and chromaticity for direct restorative materials.

This lecture aims to impart insight on the illumination interactivity and the spatial arrangement of the coronal elements of natural teeth. Through the utilization of this knowledge in the clinical approach, anterior restoration can take on a lifelike appearance with seamless integration every time.



leandropereiradds



ce<sup>o</sup>ramic

demystifying anteriors

4 days



# theory

- Bio-Emulation™: Definition and Principles
- Anterior Modern Instrumentation Modalities
- Anterior Indications for Bonded Ceramic Restorations
- Material Selection in the Adhesive Realm
- Digital Communication: Custom Shade Estimation in Synopsis
- Diagnostic Approach: Additive Wax-Up and Mock-Up Techniques
- Minimal Tooth Reduction via Guided Preparations with Silicone Indexes
- Substrate Optimization via Immediate Dentin Sealing (IDS)
- Atraumatic Impression Making
- The Alveolar Model and the Refractory Die Technique
- Ceramic Stratification Technique via Bio-Emulation™
- Bonding Protocols: Step By Step Rational Approach

The aesthetic and functional considerations are of equal importance with regards to the restorative optimization of the anterior and dentition, from a clinical and technical perspective.

Provided the diligent implementation and management of modern dental technology, dental adhesive systems have proven to be reliable over time thus imparting a secure bond between the tooth and the restoration.

However, deep knowledge of biomechanical principles and techniques of conservative tooth preparation are essential to create optimal conditions for dental technicians for the implementation of a favorable oral restitution.

The timelessness, the ideal surface characteristics and biomechanical interaction that is ensured by a high-performance dynamic bond to the tooth as a whole, classify ceramics as the ideal restorative materials and the best choice in terms of aesthetic satisfaction.

This seminar aims to impart pertinent knowledge for the dental restorative team by promoting synergy, cooperation and harmony between science and art.



panosbazosdds  
jasonsmithsonbds



## theory

- Bio-Emulation™: Definition and Principles
- Posterior Modern Instrumentation Modalities
- Posterior Indications for Bonded Ceramic Restorations
- Cuspal Coverage; By Choice or by Chance?
- Deep Margin Elevation Technique
- Parametric Preparation Design
- To Post or not to Post? A Modern Conundrum
- The Anatomical Functional Compass
- Occlusal Management and Considerations

demystifying posteriors





The aesthetic and functional considerations are of equal importance with regards to the restorative optimization of the posterior dentition, from a clinical and technical perspective.

Provided the diligent implementation and management of modern dental technology, dental adhesive systems have proven to be reliable over time thus imparting a secure bond between the tooth and the restoration.

However, deep knowledge of biomechanical principles and techniques of conservative tooth preparation are essential to create optimal conditions for dental technicians for the implementation of a favorable oral restitution.

The timelessness, the ideal surface characteristics and biomechanical interaction that is ensured by a high-performance dynamic bond to the tooth as a whole, classify ceramics as the ideal restorative materials and the best choice in terms of aesthetic satisfaction.

This seminar aims to impart pertinent knowledge for the dental restorative team by promoting synergy, cooperation and harmony between science and art.



panosbazosdds  
jasonsmithsonbds

# REGISTRATION FORM

## Bio-Emulation™ CORE

(Contemporary Oral Restorative Education) Program

# L U X E M B O U R G



- Complete Program - 4 Modules  
€3750 Initial deposit payable upon registration | €3750 1<sup>st</sup> installment payable within July 30<sup>th</sup>, 2015  
€3750 2<sup>nd</sup> installment payable within August 30<sup>th</sup> €3750 balance payable within September 30<sup>th</sup>, 2015
- Single Module - 4 day course  
€2500 Initial deposit payable upon registration | €2500 balance payable within July 30<sup>th</sup>, 2015 for Ceramic - within September 30<sup>th</sup> 2015, for Polymer
- Single Module - 2 day course  
€2500 Balance payable upon registration

Surname \_\_\_\_\_ Name \_\_\_\_\_

Date of birth \_\_\_\_\_ Tel no \_\_\_\_\_

Address \_\_\_\_\_

E-mail \_\_\_\_\_

### Address for invoicing

Company Name/Name and Surname \_\_\_\_\_

Address \_\_\_\_\_

Zip Code \_\_\_\_\_ Town \_\_\_\_\_ Country \_\_\_\_\_

VAT Code and Fiscal Code \_\_\_\_\_

### Payment method

- Bank Transfer  
vioblanc s.a. IBAN LU47 0019 4455 5886 2000 BIC: BCEELULL  
Bank: Banque et Caisse d'Epargne de l'Etat Luxembourg, Rue A. Weicker, 2, L-2721 Luxembourg  
**Please, take note that all bank charges must be paid by the Participant.**

Credit Card  
Cardholder's Name \_\_\_\_\_

Visa N. \_\_\_\_\_

MasterCard N \_\_\_\_\_

Expiry Date (mm/yy) \_\_\_\_\_ €

Card Security Code (CVV2/CVC2/4DBC) \_\_\_\_\_

- I hereby authorise VIOLife Academy to charge to my credit card the total amount specified above.  
I also hereby confirm with my signature

Signature \_\_\_\_\_

Terms and Conditions  
The registration is considered complete when the deposit payment is received by VIOLife Academy via bank transfer or credit card.  
The prices stated for each seminar are net, exclusive of VAT (17%).  
Travel expenses and cost of accommodation shall in any case be borne by the participant.  
If a registration is cancelled in writing not later than 60 calendar days prior to the beginning of the seminar, VIOLife Academy will charge no cancellation fee. If the registration is cancelled in writing 59 days to 30 days prior to the beginning of the course, a cancellation fee in the amount of 50% of the participation fee will be charged.  
In case of cancellations at a later point in time or if the participant fails to appear at the course the full fee as in case of participation will be charged.

**Bio-Emulation™ CORE**  
 (Contemporary Oral Restorative Education) PROGRAM  
 L U X E M B O U R G



Need a hotel reservation?

Hotels in the area

- Sofitel Kirchberg
  - Novotel Kircherg
  - Melia
- Breakfast  
 ■ Yes ■ No



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**Bio-Emulation™ CORE**  
 (Contemporary Oral Restorative Education) PROGRAM  
 L U X E M B O U R G

11-12<sup>th</sup> September 2015

EXPOSE with SASCHA HEIN MDT & JAVIER TAPIA GUADIX DDS

22-25<sup>th</sup> October 2015

CERAMIC with JASON SMITHSON BDS & PANOS BAZOS DDS

18-19<sup>th</sup> December 2015

ISOLATE with DAVID GERDOLLE DDS & STEPHANE BROWET DDS

14-17<sup>th</sup> January 2016

POLYMER with GIANFRANCO POLITANO DDS & LEANDRO PEREIRA DDS



This is an Official Accredited Bio-Emulation™ Program leading to the Bio-Emulation™ Affiliate Status.  
 12 Bio-credits have to be accumulated at VIOlife Academy within 24 months.

