

BIOLOGIC DENTISTRY AND GUIDED OPEN WOUND HEALING CONCEPT IN ORAL AND MAXILLOFACIAL SURGERY

Mini-Residency

***An Intensive Program
with Hands-on Workshop and Live-Surgery***

Module I (In-Person)

Dates: January 12-13th, 2024

Location: TUSDM, Boston, MA

Module II

Guided Self-Study: January - March 2024

Module III (In-Person)

Dates: March 8th- 9th, 2024

Location: TUSDM, Boston, MA

Module IV (In-Person)

Dates: April 12th- 13th, 2024

Location: TUSDM, Boston, MA

Module V (In-Person)

Dates: June 21st - 23rd, 2024

Location: Frankfurt, Germany



Program Description:

Introduction:

The invention of utilizing a patient's own blood concentrates and their positive impact on wound healing and oral soft- and bone-tissue regeneration emphasizes the truth that the patient is the main source for regeneration and healing. Accordingly, this source must first be treated and prepared for surgery via adequate nutrition, hydration, and micronutrients. Using blood concentrates with bone-substitute materials and/or collagen membranes brings "life" into these materials, which are necessary for successful ridge preservation and bone augmentation.

The use of blood concentrates also opens the way to rethink traditional concepts of oral surgery. By understanding the principles behind the Guided Open Wound Healing Concept, you will see that some aspects of surgery can be modified to reduce wound healing disorders and, consequently, decrease the possibility of pain for the patient.

The objective of this Mini-Residency program is to provide the concepts and detailed steps to enable the dentists to be able to perform surgery using biological principles and materials. The implementation of blood concentrates and Guided Open Wound Healing will create more predictability and thus sustainability in participants day-to-day work.

Module I: Basics of biologization in dentistry with bone substitutes, collagen membranes and blood concentrates

The first module focuses on teaching the biological basis of the Guided Open Wound Healing concept through management of the extracted socket. You will train intensively in the preparation and execution of each step of venous blood collection in the antecubital fossa. In addition, you will gain insight into current findings in the preparation and processing of solid and liquid blood concentrates in combination with bone substitute materials and collagen membranes of different origins for socket preservation after tooth extraction.

Module II: Blood collection, Handling with Blood concentrates

Online-access to 3-D animated instructional videos will help course participants and their teams to gain insight into the followings:

- Workplace design for venous blood sampling
- Preparation and execution of a blood collection outside a dental treatment unit
- Centrifugation
- Preparation of solid and liquid PRF matrix

Module III: Piezo-based tooth extraction, socket preservation and (immediate) implant placement with ceramic tissue-level implants based on the Guided Open Wound Healing concept

After a brief review of current clinical findings and theoretical principles, course participants will have an intensive opportunity to refine their skills in:

- Preparation and performance of venous blood sampling
- Preparation and processing of blood concentrates and sticky bone
- Learn and practice the atraumatic tooth extraction and socket preparation by means of piezo-surgery
- Learn and practice immediate and late implantation with tissue level ceramic implants by means of Guided Open Wound Healing Concept

Module IV: Blood collection, blood concentrates, complex augmentations with flexible and 3D preformed titanium meshes, floating implants

You will practice biologizing various bone graft substitutes and membranes. Additionally, you gain insights into the practical indication-based application of sticky bone in complex augmentations through case presentations as well as video recordings of surgeries. In the hands-on exercises you will learn innovative augmentation techniques and deepen your knowledge in understanding the indication of application of flexible, 3D preformed titanium meshes and PTFE membranes. Additionally, you will be introduced to Floating Implants for treatment of severe atrophic posterior maxilla.

Module V: Live surgeries: Blood sampling, biologization, piezo-based tooth extraction, implantology, complex augmentations with 3-D meshes and flexible meshes, floating implants, case presentation by the participants

In the afternoon of day 1, participants will get an opportunity to discuss their problems and challenges with the instructor and other participants through their own case demonstration. On the two following days the contents of all modules will be discussed and debated with the participants by means of live surgeries by Professor Ghanaati and his team.

Learning Objectives:

- Be able to perform systematic vein puncture and successfully generate solid and liquid blood concentrates;
- Understand the necessity of adequate nutrition, hydration, vitamins, and supplements for success in soft and bone tissue regeneration;
- Understand the benefits of blood concentrates for oral regeneration and know how to generate various types of blood concentrates;
- Be able to perform blood-concentrate-based socket preservation and ridge augmentation based on Guided Open Wound Healing for implantation to prevent jawbone atrophy;
- Know how to adequately perform suturing techniques for Guided Open Wound Healing;
- Know how to use surgical instruments in Guided Open Wound Healing;
- Understand the benefits of tissue-level ceramic implants and how to use them in performing simultaneous implantation and augmentation based on Guided Open Wound Healing;
- Understand the benefits of 3-D and flexible cages as well as PTFE membranes for complex augmentation by means of Guided Open Wound Healing;
- Have available at their offices, for use of their team, an online version of all the steps involved in vein puncture and blood concentrate generation

Course Director:



SHAHRAM GHANAATI, MD, DMD, PhD, Prof. Shahram Ghanaati is a specialist in Oral and Maxillofacial Surgery with additional designation in Plastic Surgery and has a triple doctorate in medicine, dentistry and science (MD, DMD, PhD) from the German universities Johannes Gutenberg University, Mainz and Johann Wolfgang Goethe University, Frankfurt. From 2007 to 2013, he successfully completed his residency at the Clinic of Oral, Cranio-Maxillofacial and Plastic Surgery, Johann Wolfgang Goethe University, Frankfurt. In 2013, he achieved the degree of Specialist in Oral and Maxillofacial Surgery. In 2016, he achieved the degree of Specialist in Oral and Maxillofacial Surgery with additional designation in Plastic Surgery. In 2016, he was appointed as the Chief Senior Physician and in 2017 as Deputy Director of the Department of Clinic of Oral, Cranio-Maxillofacial and Plastic Surgery, Johann Wolfgang Goethe University, Frankfurt. In the same year, Prof. Ghanaati was appointed as an Extraordinary Professor and faculty member of the Johann Wolfgang Goethe University. In 2018 he became Fellow of European Board of Oral- and Maxillo-Facial Surgeons (FEBOMFS). Today, Prof. Ghanaati leads the Head and Neck Cancer Center at the University Cancer Center, Johann Wolfgang Goethe University, Frankfurt. Prof. Ghanaati has performed several translational studies (preclinical and clinical) with special focus on biomaterial-related cellular reaction and regeneration capacity. Since more than 20 years, beginning with his scientific work at the Institute for Pathology at the Johannes Gutenberg University Mainz, he has extensively studied the inflammatory pattern and regeneration capacity of biomaterials with respect to different physicochemical properties. First in Mainz, where he in 2005 founded the Repair-Lab in vivo, and later at the University Clinics in Frankfurt/Main, where in 2009 he founded the FORM-Lab (Frankfurt Orofacial Regenerative Medicine), the research laboratory of the Department of Oral, Cranio-Maxillofacial and Plastic Surgery, Johann Wolfgang Goethe University Frankfurt. In FORM-Lab, he leads a working group of scientists and clinicians, who perform basic science and clinical studies focusing on understanding the biomaterial-based regeneration process and aspects of vascularization in management of soft and bone tissue regeneration. In 2010, he started to develop advanced preparation protocols of platelet rich fibrin (PRF) together with Dr. Joseph Choukroun, the founder of PRF. In 2016, Prof. Ghanaati and his team established the so-called LSCC (Low Speed Centrifugation Concept) for PRF-derived blood concentrates to gain a highly bioactive autologous drug delivery system. This development led to the establishment of an AWMF S3-guideline for use of PRF in oral dentistry.

Today Prof. Ghanaati's research focuses on understanding atrophic jaw pathologies, and on the optimization of bone and soft tissue regeneration. An important part is the intensive research on establishing novel surgical methods called Guided Open Wound Healing for biomaterial-based tissue augmentation in preparation for implant-based functional restoration. In his research Prof. Ghanaati participated in the development of over 10 biomaterials from the bench to the clinic. In regard to this, he is a research advisor for many of the world's leading biomaterial manufacturers.

Prof. Ghanaati has presented more than 120 lectures at national and international congresses and has given more than 150 courses and workshops on GTR & GBR in implantology as well as on regenerative concepts and blood concentrates. He has published more than 170 peer-reviewed publications, with a respective H-Index of 38 and a cumulative impact factor exceeding 620, in the field of regenerative and reconstructive medicine and research covering the whole translational research chain from basic in vitro research, to animal in vivo research, and finally in clinical studies and trials.

Speakers:



SHIBANI SAHNI, BDS, MMSc,

Assistant Professor of Comprehensive Care and the Director of CE/Centre of Lifelong Learning and Distance Education at Tufts University School of Dental Medicine.



CARLOS MOURAO, DDS, MSc, PhD,

Assistant Professor in Periodontology/ Dental Research Administration at Tufts School of Dental Medicine



Robert Sader, MD, DMD, PhD,

Medical director and CEO of the University Dental Institute "Carolinum". One of the pioneers in establishing the use of PRP as a first-generation blood concentrate in an academic environment.



PAUL WEIGL, DMD, PhD,

Head of the Department of Dental Technology and Head of the Department of Medical Technology at the Dental School of the Goethe University.

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Mini-Residency

Program Tuition: \$12,000 USD / Approx. € 11,075

**** 20% Discount applied for TUSDM Alumni and Faculty, VA, VSDO and SBCB Members**

Continuing Education Credits:

Approximately 100 CEU hours available

- Participation CEU hours: Approximately 60 hours
- Self-Study CEU hours: Approximately 25 hours

****Tufts certificate of participation given on completing the Mini-residency****

The limited number of participants in this program allows for an intensive exchange and targeted instruction in the simulation of practical procedures.

For course dates and details visit us at
dental.tufts.edu/CE

or contact us at
617.636.6629 - dentalCE@tufts.edu

