



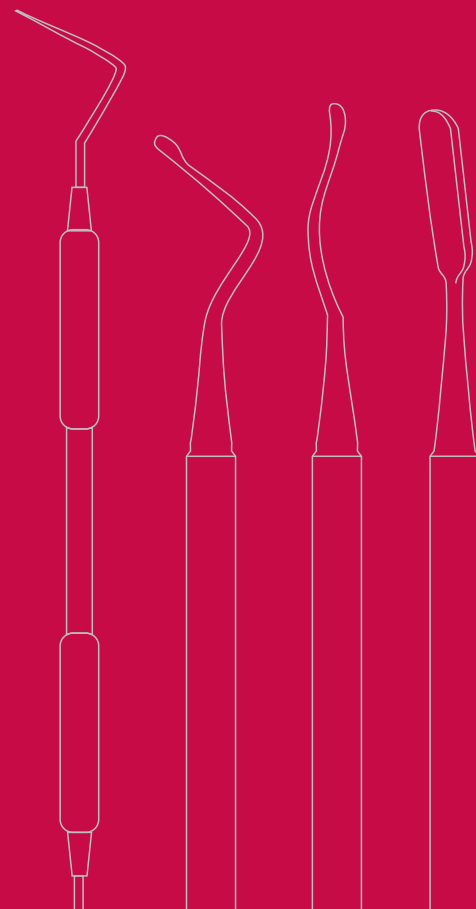
**Hu-Friedy**<sup>®</sup>

Kit for MINIMALLY INVASIVE  
PERIODONTAL SURGERY for soft and  
hard tissue reconstruction

according to

**Prof. Leonardo Trombelli**

In collaboration with Dott. Giovanni Franceschetti



## Prof. LEONARDO TROMBELLI CURRICULUM

- Associate Professor and Chair, Periodontology and Implantology, School of Dentistry, University of Ferrara.
- Director of the Research Center for the Study of Periodontal Diseases, University of Ferrara.
- President of the Italian Society of Osseointegrated Implantology (2007-2009).
- Active member of Italian Society of Periodontology, Italian Society of Osseointegrated Implantology, International Association of Dental Research, and International Academy of Periodontology.
- Editorial Board member for the Journal of Clinical Periodontology.
- Private practice limited to Periodontology and Implantology.



## Kit for MINIMALLY INVASIVE PERIODONTAL SURGERY for soft and hard tissue reconstruction

### >>> Kit description

<b>PCPUNC156</b>	Probe UNC15, handle #6 Qulix1-2-3..14-15	<b>FH3/76</b>	File Hirschfeld 3/7 handle #6
<b>PTROM16</b>	Periosteal Trombelli, handle #6	<b>FH5/116</b>	File Hirschfeld 5/11 handle #6
<b>SHDPV</b>	Micro Surgical Scalpel Handle	<b>FH9/106</b>	File Hirschfeld 9/10 handle #6
<b>TPDAPV</b>	Tissue Plier Micro	<b>PLJO/4</b>	Plugger Jovanovic 4 handle #522
<b>NHDPV</b>	Needle Holder	<b>IMDIN138</b>	IMS Cassette Signature DIN 13 instruments, blue
<b>SPV</b>	Micro Surgical Scissor		
<b>U13oSDL</b>	Ultrasonic insert Direct Flow, After five, left 30KHz		
<b>U13oSDR</b>	Ultrasonic insert Direct Flow, After five, right 30KHz		
<b>U13oSDS</b>	Ultrasonic insert Direct Flow, After five, straight 30KHz		
<b>SL1/2MF6</b>	Curette Langer 1/2 Mini Five, handle #6		
<b>SL3/4MF6</b>	Langer Curette 3/4 Mini Five, handle #6		
<b>SL5/6MF6</b>	Langer Curette 5/6 Mini Five, handle #6		

## MINIMALLY INVASIVE PERIODONTAL SURGERY for soft and hard tissue reconstruction

### >>> Introduction

In periodontal reconstructive therapy, the most challenging objective is to minimize the surgical trauma. This issue can only be achieved improving the clinical outcomes of the surgical reconstructive therapy, on one side, and optimizing the post surgical wound healing processes and the patient comfort , on the other side.

Thus, we looked for less and less invasive surgical techniques, aiming at preserving as much as possible the periodontal tissues and reducing the surgical trauma to the tissues.

Clinical outcomes such as these can be obtained only with specifically and appropriately designed instruments with an associated optical magnification system (loop or microscope).

Keeping this in mind, Leonardo Trombelli ideates the Kit for minimally invasive periodontal surgery for soft and hard tissues reconstruction.

This kit contains selected and appropriately designed instruments for the surgical reconstruction of periodontal hard and soft tissues:

- micro blades for precise incisions
- periosteal with reduced working ends not to traumatize the tissues during flap elevation
- ultrafine manual and mechanical instruments for a minimally invasive intrasurgical debridement
- suture instruments.

## SURGICAL STEPS AND INSTRUMENTS USE

### HARD TISSUE RECONSTRUCTION: Single Flap Approach (Trombelli et al. 2008)

*This technique is characterized by elevating a mucoperiosteal flap only in one side (buccal or oral exclusively) to achieve the surgical access to the infraosseous defect. Such a surgical access implies a minimal bone exposure and an easy surgical flap adaptation. This technique has to be associated to the use of membrane, osseous graft or bone substitutes, alone or in association.*



>>> Periodontal Probe PCPUNC156,  
handle #6, Qulix 1-2-3..14-15

The probe allows us to perceive the osseous defect anatomy, through bone sounding.



>>>Micro Scalpel handle SHDPV

The round scalpel handle gives us optimal tactile sensibility and firm control of the blade rotational movements. The microblade permits us to perform a precise and minimally.



>>> Periosteal Trombelli PTROM16,  
handle #6

>>> Tissue plier Micro TPDAPV

The periosteal PTROM16 has two small round ends. It's specifically designed for flap elevation in the interdental area. The anatomical pliers can move the flap without tearing the soft tissue.



>>> Langer Curette Mini-Five™  
SL1/2MF6, SL3/4MF6, SL5/6MF6

The Mini-Five™ Langer universal curets allow us to remove the granulation tissue and to plan any irregularities of the root.





>>> Hirschfeld files  
FH3/76, FH5/116, FH9/106  
handle #6

The Hirschfeld files permit us to degranulate the bottom of the defect, even in presence of narrow and deep osseous lesions. Furthermore, they can decorticalize the defect bone walls to expose the midullar cavities, improving the osteogenic potential of the defect.



>>> Ultrasonic Inserts  
Direct Flow, After-Five™  
Ul3oSDL, Ul3oSDR, Ul3oSDS

The fine ultrasonic inserts, straight or curved, allow us to perform a thorough intrasurgical debridement, without traumatizing the periodontal tissues or the root surface.



>>> Periodontal Probe PCPUNC156  
handle #6 Qulix1-2-3..14-15  
>>> Plugger Jovanovic PLGJO/4  
handle #6

Probe PCPUNC156  
Intraoperative  
defect evaluation  
with the peri-  
odontal probe.



Plugger PLGJO/4  
The bone plugger  
plugs the graft  
into the defect.



>>> Needle Holder Micro NHDPV

The straight needle holder with small working ends permits us to precisely control the needle movements.



## SURGICAL STEPS AND INSTRUMENTS USE

### SOFT TISSUE RECONSTRUCTION: Supraperiosteal Envelope Technique (Allen 1994)

This technique is characterized by performing supraperiosteal envelope, extending laterally and apically of the recession area. A connective tissue graft is harvested from a palatal donor site, inserted into the supraperiosteal envelope and sutured. The technique indications are: multiple or single recessions where the main objective is to improve the gingival dimensions of the site and root coverage.



>>> Preoperative image.  
Miller I class recession.



>>> Ultrasonic Inserts  
UI30SDL, UI30SDR, UI30SDS  
Direct Flow, After-Five™

In the pre-operative phase, the fine ultrasonic inserts allow us to thoroughly debride the root surface without traumatizing the surrounding soft tissues.



>>> Micro Surgical Scalpel handle SHDPV

The rounded microblade permits us to realize a supraperiosteal envelope. The rounded scalpel handle guarantees a perfect control of the blade movement.



>>> Periodontal Probe PCPUNC156,  
handle #6, Qulix 1-2-3..14-15

After creating the supraperiosteal envelope, the probe UNC 15 allows us to precisely measure the receiving site area.





>>> Periosteal Trombelli, PTROM16,  
handle 6  
>>> Tissue Plier Micro TPDAV

After the split-thickness palatal incision, the periosteal PTROM16 and the tissue pliers TPDAV permit us to harvest the connective tissue graft, without trauma.



>>> Micro Surgical Scissor SPV

The tissue scissors are specifically designed to model the connective tissue graft or the flap.



>>> Micro Needle Holder NHPV

The straight needle holder with small working ends permits us to precisely control the needle movements.



# *PERMA SHARP*<sup>®</sup>

S U T U R E S

*For suturing in implantological procedures, we recommend using polypropelene from Hu-Friedy in sizes 3-0 to 4-0.*

*For suturing of esthetically demanding areas, we recommend Hu-Friedy polypropelene 5-0 to 7-0.*



## **Less Tissue Disruption**

Perma Sharp<sup>®</sup> needle diameter is adjusted according to the size of the suture material.

## **A finer Point Geometry**

Made with 300 Series Stainless Steel, Perma Sharp<sup>®</sup> Sutures have a finer point geometry for smoother penetration, and they feel just as sharp on the last pass as the first. Lab studies show Perma Sharp<sup>®</sup> Sutures require up to 20% less force to penetrate\*.  
\*Data on file at Hu-Friedy

# Instrument Management System



How Practices Make Perfect



# Instrument Management System



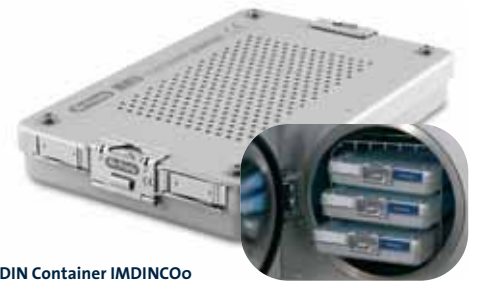
## >>> DIN cassette IMDIN138

DIN cassette for 13 instruments plus additional space. With space, ideal for surgery. Blue colour.  
Dimensions: 290 x 184 x 34 mm.



## >>> Container Cassette IMCC128

For 12 Instruments and accessory space, with handle. Blue color.  
Dimensions: 268 x 176 x 34 mm.



## >>> DIN Container IMDINCO0

DIN Container for max. 1 Container Cassette, Bottom and top with filter.  
Dimensions: 300 X 190 X 48 mm.



## >>> DIN Container IMDINCO2

DIN Container for max. 2 Container Cassettes, Bottom and top with filter.  
Dimensions: 300 X 190 X 100 mm.

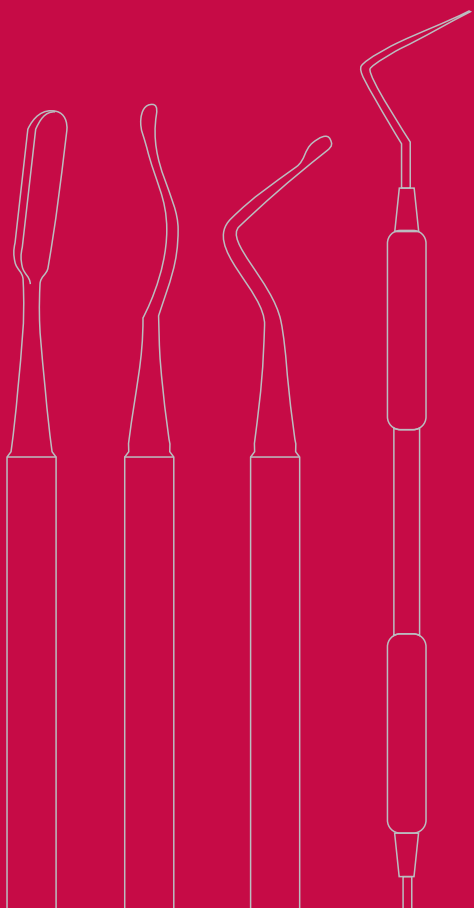
## >>> Bibliography Prof. Leonardo Trombelli

- Guida L, Annunziata M, Belardo S, Farina R, Scabbia A, Trombelli L. **Effect of autogenous cortical bone particulate in conjunction with enamel matrix derivative in the treatment of periodontal intraosseous defects.** *Journal of Periodontology*. 2007 Feb;78(2):231-8.
- Trombelli L, Annunziata M, Belardo S, Farina R, Scabbia A, Guida L. **Autogenous bone graft in conjunction with enamel matrix derivative in the treatment of deep periodontal intra-osseous defects: a report of 13 consecutively treated patients.** *Journal of Clinical Periodontology*. 2006 Jan;33(1):69-75.
- Minenna L, Herrero F, Sanz M, Trombelli L. **Adjunctive effect of a polylactide/ polyglycolide copolymer in the treatment of deep periodontal intra-osseous defects: a randomized clinical trial.** *Journal of Clinical Periodontology*. 2005 May;32(5):456-61.
- Trombelli L. **Which reconstructive procedures are effective for treating the periodontal intraosseous defect?** *Periodontology 2000*. 2005;37:88-105.
- Trombelli L, Minenna L, Farina R, Scabbia A. **Guided tissue regeneration in human gingival recessions. A 10-year follow-up study.** *Journal of Clinical Periodontology*. 2005 Jan;32(1):16-20.
- Trombelli L, Heitz-Mayfield LJ, Needleman I, Moles D, Scabbia A. **A systematic review of graft materials and biological agents for periodontal intraosseous defects.** *Journal of Clinical Periodontology*. 2002;29 Suppl 3:117-35; discussion 160-2.
- Trombelli L, Bottega S, Zucchelli G. **Supracrestal soft tissue preservation with enamel matrix proteins in treatment of deep intrabony defects.** *Journal of Clinical Periodontology* 2002;29:433-439.
- Tatakis DN, Trombelli L. **Gingival recession on treatment: guided tissue regeneration with bioabsorbable membrane versus connective tissue graft.** *Journal of Periodontology*. 2000 Feb;71(2):299-307.
- Trombelli L. **Periodontal regeneration in gingival recession defects.** *Periodontology 2000*. 1999 Feb;19:138-50.
- Trombelli L, Kim, C.K., Zimmerman, G.J., Wikesjo, U.M. **Retrospective analysis of factors related to clinical outcome of guided tissue regeneration procedures in intrabony defects.** *Journal of Clinical Periodontology* 1997;24:366-371.
- Trombelli L, Farina R, Franceschetti G, Calura G. **Single Flap Approach with Buccal Access in Periodontal Reconstructive Procedures. A case series.** *Journal of Periodontology* 2008 (in press).



**Hu-Friedy**<sup>®</sup>

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