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Several millions implants treated since the beginning, several hundred thousands / year, a few thousands /day

2018

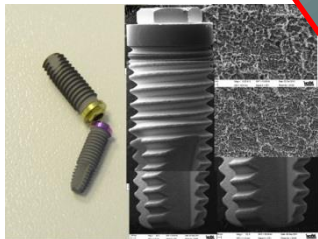
Surface treatment of dental implants

Production and sales of biomaterials for oral surgery

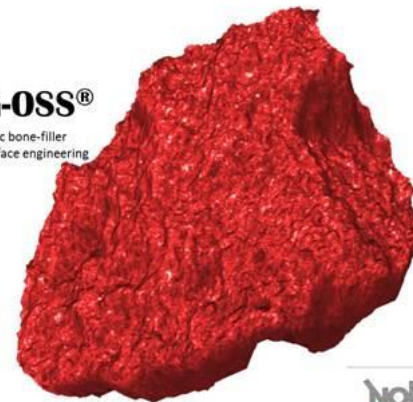
Employees: 18

Graduated people expertises:  
Chemistry, Biological Sciences,  
Biomedical engineering

Surface analysis of implant devices

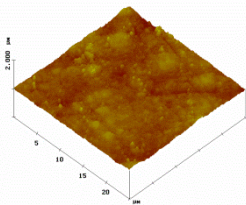


**SYNERG-OSS®**  
Bio-enhanced synthetic bone-filler  
through advanced surface engineering



Surface treatment of dental implants

1997



Surface analysis of  
implant devices



The company is ISO 9001 and ISO  
13485 qualified

1994



**Innovating DENTAL Implantology through bIoTechnologY:**  
exploitation of properties of polyphenols recovered from grape pomace  
to prevent periimplant free-radicals damage

Take dried winery by-products...

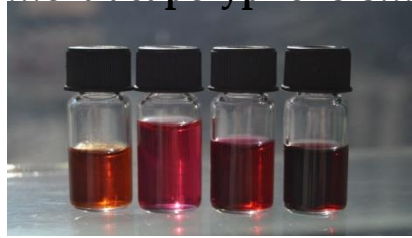


...investigate their effects on model cell systems....

...grind them....



...extract polyphenols....



## Bone filler paste

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)  
(19) World Intellectual Property Organization  
International Bureau  
(43) International Publication Date  
5 February 2015 (05.02.2015)

**WIP O | P C T**

(10) International Publication Number  
**WO 2015/014872 A1**

(51) International Patent Classification:  
A61K 6/00 (2006.01) A61K 6/82 (2006.01)

(21) International Application Number:  
PCT/EP2014/066314

(22) International Filing Date:  
30 July 2014 (30.07.2014)

(23) Filing Language:  
English

(24) Publication Language:  
English

(30) Priority Data:  
MI2013/001350 1 August 2013 (01.08.2013) IT

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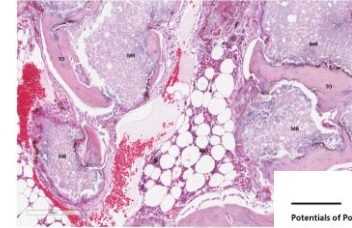
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## Biomolecular surface treatment



## Bone filler particles



Chapter 4

### Potentials of Polyphenols in Bone-Implant Devices

Ella Torra, Giorgio Inglea, Clara Casinelli and Marco Morla

Additional information is available at the end of the chapter  
<http://dx.doi.org/10.5772/intechopen.76739>

#### Abstract

Knowledge of bioactive plant-derived polyphenols is growing, to such an extent that active interest is being developed in their application in regenerative medicine through use and abuse of their bone regenerative properties. This review will analyze and summarize available data on phytochemicals' beneficial properties, with particular emphasis on polyphenols. In the last few years, thanks to different pathways of oxidation, including autooxidation and free-radical, reactive generation reactions, and to their low toxicity, they have been proposed as potential bone-healing agents. In particular, thanks to polyphenols' effect on bone cells and tissue metabolism, bone healing from fractures is enhanced. (1) The discussion focuses on polyphenols in vivo use. Purpose of the discussion is to provide the reader with available knowledge of polyphenols, not only regarding their different natural occurrence, but also their effect on bone healing, representing the most significant application.

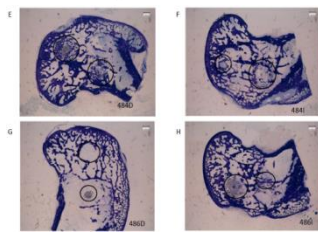
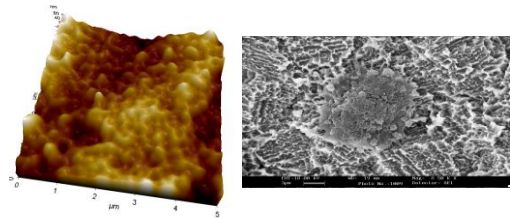
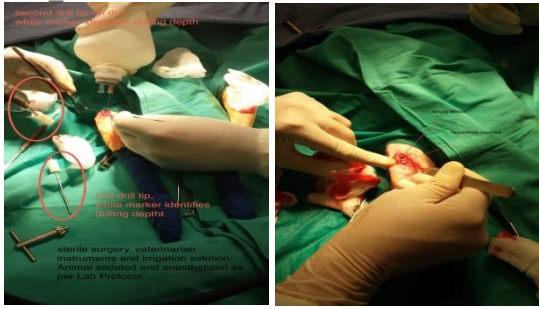
**Keywords:** polyphenols, bone regeneration, osteogenic mechanisms, bone-healing devices, polyphenols

#### 1. Introduction

Plants and their single parts have been employed, for millennia, for healing purposes: diverse natural therapy (herbal-medicinal pharmaceuticals). Thanks to their richness in different bioactive compounds, effective on several biological systems (2). Among these, polyphenols are present. Different beneficial properties on health – especially effective on the improvement of chronic pathologies such as cardiovascular disease, osteoporosis, diabetes, and neurodegenerative diseases – which have strengthened the interest of scientific community (3). Osteoporosis



(54) Title: COMPOSITION FOR FILLING BONE AND PERIODONTAL DEFECTS



# Future project.....2019



Project Work con  
Master in Sviluppo  
Locale (Dr. Riccardo  
Campion)

**Input**  
(Università,R&D)

(Aziende)



**Output**  
(Società locale/globale)

Sottoprodotti:

- Perisperma
- Gusci



Prodotti alimentari «primi»

Dispositivi medici

Prodotti per edilizia

Cosmetici e Benessere

Prodotti alimentari «secondi»



## Il Consorzio:

- Azienda Agricola Fratelli Durando
- Nobil Bio Ricerche srl
- Politecnico di Torino
- Sarotto srl
- BeLCA
- Università di Pollenzo