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**SELEZIONE PUBBLICA N. 2022N36, PER TITOLI ED ESAMI, PER L'ASSUNZIONE A TEMPO INDETERMINATO DI N. 2 PERSONE DI CATEGORIA D, POSIZIONE ECONOMICA D1, AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONE DATI, A TEMPO PIENO, PRESSO L'UNIVERSITÀ DEGLI STUDI DI PADOVA - TECNICO DI LABORATORIO PER AREE ANALITICHE COMPLESSE ED EMERGENTI CON IMPLICAZIONI PER LA MEDICINA TRASLAZIONALE.**

### **QUESITI COLLOQUIO**

#### **DOMANDA N. 1**

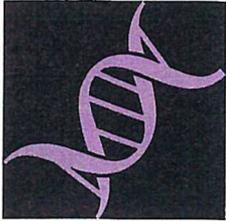
Tecniche elettroforetiche di separazione di proteine.

#### **DOMANDA N. 2**

Descrizione dei sistemi bioinformatici per l'analisi dei test molecolari.

#### **DOMANDA N. 3**

Principi e metodi di controllo della fase pre-analitica.



International Journal of  
*Molecular Sciences*

Article

# Lipomatrix

## A Novel Ascorbyl Palmitate-Based Lipid Matrix to Enhancing Enteric Absorption of *Serenoa Repens* Oil

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Stefano Valier, Arrigo Francesco Giuseppe Cicero,  
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*Int. J. Mol. Sci.* **2019**, *20*(3), 669; doi:10.3390/ijms20030669



Article

# Lipomatrix: A Novel Ascorbyl Palmitate-Based Lipid Matrix to Enhancing Enteric Absorption of *Serenoa Repens* Oil

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Received: 6 January 2019; Accepted: 31 January 2019; Published: 4 February 2019

**Abstract:** The class of lipophilic compounds coming from vegetal source represents a perspective in the adjuvant treatment of several human diseases, despite their poor bioavailability in humans. These compounds are generally soluble in fats and poorly soluble in water. The major reason for the poor bioavailability of lipophilic natural compounds after oral uptake in humans is related to their reduced solubility in enteric water-based fluids, leading to an ineffective contact with absorbing epithelium. The main goal to ensure efficacy of such compounds is then creating technological conditions to deliver them into the first enteric tract as hydro-dispersible forms to maximize epithelial absorption. The present work describes and characterizes a new technological matrix (Lipomatrix, Labomar Research, Istrana, TV, Italy) based on a molten fats core in which Ascorbyl Palmitate is embedded, able to deliver lipophilic compounds in a well-dispersed and emulsified form once exposed to duodenal fluids. Authors describe and quantify Lipomatrix delivery of *Serenoa repens* oil through an innovative in vitro model of human gastro-enteric digestion, reporting results of its improved bioaccessibility, enteric absorption and efficacy compared with not formulated *Serenoa repens* oil-containing commercial products using in vitro models of human intestine and prostatic tissue.

**Keywords:** ascorbyl palmitate; mono and diglycerides of fatty acids; natural lipophilic compounds; nutraceutical products; *Serenoa repens* oil; enteric bioaccessibility

## 1. Introduction

Natural compounds with specific reference to plant-derived active ingredients are raising interest as coadjuvant treatment of human diseases. In recent years, this trend has consolidated and many natural products have been introduced into the market under the label of nutritional supplements (NS) or foods with special medical purposes (SMPF). Despite the effective and charming marketing efforts of companies in selling these products following medical routes, the real efficacy of nutraceuticals is