



New Business Opportunities & Environmental Sustainability using MED GRAPE Nanotechnological Products

Jordan Society for scientific research, entrepreneurship, and creativity

TOR for consultation

Jordan society for scientific research, entrepreneurship, and creativity (JSSREC) is an NGO organization established in 1999 and focus on the spreading of scientific research culture. JSSREC is seeking to hire a consultant for the ENI-CBC project “BESTMEDGRAPE “funded by EU-ENI CBC. The qualified consultants are mainly required to provide the requested certificates and expertise which suite the following description:

Description of Consultation

This consultation is considered a training/teaching consultation for the project BMG excused in Jordan by JSSREC (Partner number 7 of the project). The consultation includes the following tasks:

Task 1: Teaching topic Development and characterization of grape phytonanoformulations (LL3).

Important note: The educational materials (PPT presentation, Manual, videos, quizzes) for LL3 are already developed and available on project platform so no need to develop any educational material.

Topics include:

I. Characterization of grape phytonanoformulations (LL3).

1. INTRODUCTION

2. COSMECEUTICAL AND NUTRACEUTICAL PRODUCTS

- 2.1 Cosmeceutical products
- 2.2 Nutraceutical products
- 2.3 Biological barriers: skin, mucosae and intestinal epithelium
 - 2.3.1 Skin
 - 2.3.2 Mucosae
 - 2.3.3 Intestinal epithelium



- 2.4 Advantages provided by dosage forms
- 2.5 European regulations for cosmeceutical and nutraceutical products
 - 2.5.1 Regulatory aspects of cosmeceuticals
 - 2.5.2 Regulatory aspects of nutraceuticals

3. COSMECEUTICAL AND NUTRACEUTICAL PRODUCTS CONTAINING GRAPE EXTRACTS

- 3.1 Grape pomaces as biosources of active compounds
- 3.2 Topical dosage forms for cosmeceuticals
 - 3.2.1 Liquid dosage forms
 - 3.2.2 Semi-solid dosage forms
 - 3.2.3 Liquid and semi-solid formulations for cosmeceuticals
- 3.3 Oral dosage forms for nutraceuticals
 - 3.3.1 Solid dosage forms
 - 3.3.2 Liquid dosage forms
 - 3.3.3 Solid and liquid formulations for nutraceuticals

4. COSMECEUTICAL AND NUTRACEUTICAL PRODUCTS CONTAINING GRAPE EXTRACT NANOFORMULATIONS

- 4.1 Introduction to nanocarriers
- 4.2 Phospholipid vesicles and their use for the delivery of natural compounds
 - 4.2.1 Structure and composition of phospholipid vesicles
 - 4.2.2 Preparation methods
 - 4.2.3 Characterization of phospholipid vesicles: methods of analysis
 - 4.2.4 Phospholipid vesicles to prepare nanotechnological cosmeceuticals
 - 4.2.5 Phospholipid vesicles to prepare nanotechnological nutraceuticals
- 4.3 Loading of grape pomace extract in phospholipid vesicles to produce cosmeceuticals and nutraceuticals
 - 4.3.1 Vesicle formulations for cosmeceuticals and nutraceuticals

Task 2.: Teaching topic *in vitro* and *in vivo* bioactivity of grape phytonanoformulations (LL4)

Important note: The educational materials (PPt presentation, Manual, videos, quizzes) for LL4 are already developed and available on project platform so no need to develop any educational material.

Topics include:

1. INTRODUCTION

2. BIOACTIVE MOLECULES FROM GRAPE WASTE AND BY-PRODUCTS

- 2.1 Beneficial properties of grape
- 2.2 Beneficial properties of grape pomaces
- 2.3 Health benefits of phenolic compounds
 - 2.3.1 Flavonoids



2.3.2 Non-flavonoids

3. BENEFICIAL EFFECTS OF GRAPE POMACE EXTRACT FORMULATIONS ON SKIN

- 3.1 Oxidative stress-related skin diseases
- 3.2 Antioxidant, antiaging and restoring effects

4. BENEFICIAL EFFECTS OF GRAPE POMACE EXTRACT FORMULATIONS ON GASTRO-INTESTINAL TRACT

- 4.1 Gastro-intestinal diseases
- 4.2 Prebiotic effects
- 4.3 Protective effects

5. BENEFICIAL EFFECTS OF GRAPE POMACE EXTRACT FORMULATIONS ON CARDIO-VASCULAR SYSTEM

- 5.1 Cardio-vascular diseases
- 5.2 Restoring and protective effects

6. BENEFICIAL EFFECTS OF GRAPE POMACE EXTRACT FORMULATIONS ON NEURODEGENERATION

- 6.1 Natural antioxidants, ageing and neurodegenerative diseases
- 6.2 Use of cell cultures in the study of natural antioxidants
- 6.3 Use of behavioral pharmacology in the study of natural antioxidants
- 6.4 Use of immunohistochemistry in the study of natural antioxidants

Task 3.: Evaluate trainees (students) using pre-developed quizzes available on project platform.

Consultation logistics:

- Teaching (Training) dates: 20-25 June 2021.
- Teaching (Training) duration (Training):
- LL3: 3 days theory (5 hrs./day) & 1 practical session (2 hrs.)
- LL4: 2 days theory (5 hrs./day) & 1 practical session (2 hrs.)
- Number of trainees: 60 (30 from Jordan and 30 from Lebanon)
- Requirements after accomplishment of tasks: Report including evaluation results

Instructions:

- Required documents for tender: C.V.s
- C.V.s should be sent not later than 15/06/2021 to info@jssr.jo, 15:00. The subject should clearly indicate the (BESTMEDGRAPE Consultation)



- Contract will be signed after week of offers' evaluation.
- Your questions can be sent to Eng. Lina Al Hassan / Project Scientific Coordinator at: info@jssr.jo.
- C.V.s received after the mentioned deadline will be excluded.

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