

INTERNATIONAL SOCIETY OF ANTIOXIDANTS

First Workshop on

# Food Byproducts Valorization through Polyphenols Extraction

September 22, 2021

## AGENDA



[www.polyphenols-site.com](http://www.polyphenols-site.com)

14<sup>th</sup> World Congress

2021

**Polyphenols  
Applications**

September 22-24, 2021 - Virtual Congress

# Polyphenols Applications 2021

September 22-24, 2021 – Online

## First workshop on Food Byproducts Valorization through Polyphenols Extraction September 22, 2021 - 14h00 - 18h30

In collaboration with the ISANH, we are pleased to announce the organization of the first workshop dedicated to **Food Byproducts Valorization through Polyphenols Extraction** which will be held on September 22, 2021 (One day before the 14<sup>th</sup> World Congress on Polyphenols Applications).

### Aim and objectives:

Food waste valorization practices have gained much attention lately as a means of sustainable management. These materials constitute an underexploited source for the recovery of natural compounds. The value of food byproducts is associated with their content in dietary fibers and several bioactive molecules that can be capitalized in the food, pharmaceutical, cosmetic and nutraceutical industries. One of the main molecules extracted and purified are polyphenols.

The aim of this workshop is to explore with the attendees the latest state of the art technologies regarding the extraction and characterization methodologies used nowadays in the research laboratories but also to present a business creation model based on a technology transfer strategy using antioxidants extracted from different food byproducts focusing on the scale up, the process commercialization and the applications.

### The workshop sessions which will be discussed:

The different sources of food byproducts and food waste will be presented in session 1 taking into consideration polyphenols as functional compounds; the conventional, emerging and innovative extraction methodologies will be exposed in session 2 as well as the basics of the recovery strategy; polyphenols characterization using up-to-date assays will be discussed during session 3; a business creation model based on a technology transfer strategy using antioxidants extracted from different food byproducts will be presented in session 4 putting the accent on the process commercialization and potential applications; From lab to market study including the preparation of bioactive enriched products (powder, solutions, etc.) and their commercialization will be explored in session 5 highlighting the use of these antioxidant molecules in different industrial applications; finally an optional session (session 6) will be proposed for the attendees coming with their one ideas for a one-to-one consultancy

This workshop is intended for anyone who wish to improve their skills and knowledge in the field of Food Byproducts Valorization, Polyphenols and Antioxidants Extraction.

Looking forward to meeting you very soon.

Please don't hesitate to contact us for any further information.



**Prof. Richard Maroun,**  
Chairman & trainer of ISANH Workshop  
Saint-Joseph University of Beirut,  
Lebanon

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# First workshop on Food Byproducts Valorization through Polyphenols Extraction

September 22, 2021 - 14h00 - 18h30

## Agenda

14:00 **General introduction**

*Richard Maroun, Saint-Joseph University of Beirut, Lebanon*

14:30 **Session 1: Food byproducts and food waste sources - Classification and typology & Polyphenols as functional compounds**

*Richard Maroun, Saint-Joseph University of Beirut, Lebanon*

15:00 **Session 2: Extraction methodologies: Conventional, emerging, and innovative: Basics of the recovery strategy**

*Hiba N. Rajha & Nicolas Louka, Saint Joseph University of Beirut, Lebanon*

- |                                 |                                      |
|---------------------------------|--------------------------------------|
| - Solid-Liquid                  | - Pulsed electric fields             |
| - Ultrasounds                   | - High-voltage Electrical discharges |
| - Microwaves                    | - Infrared                           |
| - Supercritical CO <sub>2</sub> | - IVDV                               |

15:50 **Coffee Break**

16:05 **Session 3: Polyphenol's characterization: Biochemical and Chromatographic assays**

*Richard Maroun, Saint-Joseph University Beirut, Lebanon*

- |                          |           |
|--------------------------|-----------|
| - Folin-Ciocalteu method | - HPLC    |
| - DPPH                   | - HPLC-MS |

16:30 **Session 4: A case study, a state-of-the-art research work - Scale up, process commercialization and potential applications**

*Hiba N. Rajha & Nicolas Louka, Saint Joseph University of Beirut, Lebanon*

- |  |                                  |
|--|----------------------------------|
| • Raw material pretreatments (drying, grinding, etc.)      | • Concentration of extracts      |
| • Extraction process (solid-liquid, etc.)                  | • Freeze or spray drying         |
| • Purification process (chromatography or ultrafiltration) | • Powder obtainment and analyses |

17:15 **Session 5: From lab to market. Commercialization of polyphenols as industrial additives  
Possible applications: Food, cosmetics, pharmaceuticals, etc.**

*Richard Maroun, Nicolas Louka, Hiba N. Rajha, Saint Joseph University of Beirut, Lebanon*

- Examples of polyphenols applications in food
- Examples of polyphenols applications in cosmetics
- Examples of polyphenols applications in pharmaceuticals Powder obtainment and analyses



17:45 **Concluding remarks, take home messages**  
*Richard Maroun, Nicolas Louka, Hiba N. Rajha, Saint Joseph University of Beirut, Lebanon*

18:00 **Session 6 (optional): Meet the experts, come with your idea for a one-to-one consultancy session**  
**Exploring attendee's own valorization projects**

Please reserve a time slot, between 18h – 18h15 or 18h15 – 18h30 and specify your valorization project

## Information

Registration fee for only workshop:

- Student & PhD: **265€**
- Academics: **365€**
- Industrials: **465€**

If you wish to combine your registration with the Congress registration (till June 30):

- Workshop & Polyphenols 2021 Congress for Student: **395€**
- Workshop & Polyphenols 2021 Congress for Academic: **595€**
- Workshop & Polyphenols 2021 Congress for Industrial: **850€**
- Workshop Report in PDF Format & Recording: **350€**

To register, please use the online form available at <https://polyphenols-site.com/workshop/>

## Who Should Attend?

This workshop is intended for anyone who wish to improve their skills and knowledge in the field of Food Byproducts Valorization, Polyphenols and Antioxidants Extraction. Research director, R&D director, engineer, research assistant, or business leader? You work in Food & Beverage sectors, waste valorization and optimization.

## Teaching resources

- Presentation support given to participants
- Presentation proposed by the speaker via Power Points
- Q&A session with all participants

## Report

All attendees will receive a report detailing each session and will obtain summaries and / or Power Point presentations of the various interventions.

If you cannot attend the workshop, you can order:

- The report in PDF format
- The recorded Workshop



Welcome to the 14<sup>th</sup> World Congress on

# POLYPHENOLS APPLICATIONS 2021

*Polyphenols 2021: Strategies, Innovations & Challenges*

SEPTEMBER 22-24, 2021 - VIRTUAL CONGRESS

## Polyphenols Applications 2021

September 22-24, 2021 – Online

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