

SCIENTIFIC REPORT OF THE SHORT TERM SCIENTIFIC MISSION “COST-STSM-ECOST- STSM-FA1403-010715-061235”

Development of Guidelines to Perform Systematic Reviews to Assess the Impact of Bioactives on Cardiometabolic Biomarkers

The **main purpose** of this Short-Term Scientific Mission (STSM) was to contribute to WG2 of the COST Action FA1403 POSITIVE, specifically in the developing of the guidelines to perform the systematic review on the impact of bioactives on cardiometabolic biomarkers according to the PRISMA Statement.

The STSM was located at UCD Institute of Food and Health, University College Dublin, in collaboration with Dr. Cristina Andres-Lacueva (University of Barcelona) and Ana Rodriguez-Mateos (University of Düsseldorf).

The main objectives of this STSM were to further the ongoing work within WG2. Specifically to:

1. To review the study selection process by contact individual researchers in order to:
 - a. determine and check consistency of key search terms being used
 - b. confirm status of search process
 - c. check compliance to data entry method examining the excel files of the screening process (step 1) prior to progression to step 2 (data extraction & study quality assessment)
 - d. derive flow chart for each search using the PRISMA flow diagram
2. To identify other authors with experience in developing meta-analysis in the field of polyphenols and cardiovascular disease.

3. To develop the template for data extraction and risk of bias assessment by:
 - a. defining which information will be required from each study in order to include data from the effects of the bioactive on cardiometabolic risk biomarkers, from the possible sources of variability between subjects, and from the study quality.
 - b. designing a data extraction template to accurately record the information that researchers will have to collect from the selected studies.
4. To write the protocol of the ongoing systematic review work for registration and publishing.

During this period we checked the searches undertaken by each working group (i.e. biomarker) to ensure standardized search was followed. Following this, we ran each search using the harmonized keywords and updated the excel files for the step 1. During the period of this STSM we completed this step for 2 of the working groups (including both the last versions of the excel files and the flow diagram of study selection). The remaining groups are in the final stages and will be completed by meeting in Murcia. In addition, we also developed a first draft of the data extraction template (step 2), which is now in circulation to other participants in order to get their feedback. Finally, we wrote a protocol for the systematic review with the aim to register and publish it.

In addition, this STSM brought the opportunity to foster the **collaborations** between the University of Barcelona and the University College Dublin, as well as strengthen this network. As a result of this short-term scientific mission another application has been submitted to develop an exchange between these both institutions within the framework of NuGO-supported staff exchanges, proving the foundations of new collaborations between the institutions.

The foreseen **publications** resulting from the STSM are a draft for both the protocol registration and publication.