

<b>Work package 3: Biochemical and phytochemical analyzes of different morphotypes of Stevia (Stevia rebaudiana Bertoni.)</b>
<b>Start and end of the work package:</b> Months 9 - 21, Months 25 - 36
<b>Work package leader:</b> Professor Antoaneta Trendafilova, PhD
<b>Participants in the implementation of the work package:</b>
Assoc. Prof. Maria Geneva Assist. Prof. Elisaveta Kirova Assist. Prof. Kamelia Miladinova-Georgieva Victoria Ivanova Mariana Sitchanova
<b>Planned tasks:</b>
<b>Task 3.1</b> Determination of enzymatic and non-enzymatic antioxidant capacity, as well as total antioxidant activity of <i>in vitro</i> propagated morphotypes Stevia ( <i>Stevia rebaudiana</i> Bertoni.)
<b>Deliverable</b> Obtaining valuable information for assessing the antioxidant activity of micropropagated morphotypes obtained by varying the components of the MS culture medium. By comparing the obtained data with those of conventionally propagated by seeds, the influence of nanofibers newly synthesized by low molecular weight peptidomimetics, as carriers/sources of biologically active agents, on the antioxidant potential will be evaluated.
<b>Task 3.2</b> Extraction of the studied morphotypes for phytochemical studies, microdistillation-extraction according to "Likens-Nickerson"
<b>Deliverable</b> Preparation of total extracts and fractions enriched on the target components, as well as essential oils for phytochemical research.
<b>Task 3.3</b> Quantitative evaluation of the main types of compounds (total phenolic and flavonoid content and antioxidant capacity in <i>in vitro</i> propagated morphotypes, as well as in conventionally propagated by seeds stevia ( <i>Stevia rebaudiana</i> Bertoni.)
<b>Deliverable</b> comparative characteristics of the content of phenolic compounds and flavonoids, as well as of the antioxidant capacity of the studied micropropagated plants with those traditionally propagated by seeds
<b>Task 3.4</b> Quantitative evaluation of the influence of the newly synthesized amino acid nanofiber carriers of biologically active agents on the main components (steviol glycosides) in the studied samples
<b>Deliverable</b> Valuable information will be obtained about the amount of BASM in the studied micropropagated morphotypes with different additives to the MS nutrient medium, which will allow comparison with those conventionally propagated by seeds.
<b>Task 3.5</b> Preparation of a scientific and financial report on the work performed under the Work Package, Processing of the obtained results and their formation into materials for participation in Scientific Forums and writing scientific articles
<b>Deliverable</b> With the results obtained in this work package, we will take part in a scientific forum and scientific and financial reports will be prepared.