



Project ERASMUS K2: "Cooperation to implement innovative methods for the assessment of medicinal plants with central roles in pharmaceutics, agriculture and nutrition" (EURO-PLANT-ACT) KA220-HED - Cooperation partnerships in higher education Contract No. 2022-1-RO01-KA220-HED-000088958

REPORT - TRAINING FOR EXPERTS

Victor Babes University of Medicine and Pharmacy from Timisoara / Faculty of Pharmacy (CO)

15.05.2023 - 19.05.2023

Between May 15-19, 2023, expert training took place at the University of Medicine and Pharmacy "Victor Babes" in Timisoara, CO, Timisoara, Romania. This session was attended by 18 specialists, with four specialists from each university involved in the project and two specialists from the industry partner, as follows:

- Coordinator (UMFVBT) Cristina Adriana Dehelean, Iulia Andreea Pînzaru, Ioana Gabriela Macaşoi, and George Andrei Drăghici (4 specialists in pharmacy/medicine and toxicology (pharmacological-toxicological evaluations)).
- P1 (USVT) Georgeta Pop, Monica Negrea, Ileana Cocan, and Diana Obistioiu (4 specialists in the food industry).
- P2 (UNIOS) Renata Baličević, David Kranjac, Maria Ravlić, and Jasenka Cosic (4 specialists in agriculture).
- P3 (UNICAL) Filomena Conforti, Giancarlo Statti (online), Maria Stefania Sinicropi, and Diletta Gentile (online) (4 specialists in pharmacy and nutrition).
- P4 (ROMPAN) Daniela Voica and Dana Avram (online) (2 specialists in the food industry).

In accordance with the activities outlined in the project proposal, theoretical and practical demonstration sessions were conducted involving all participants. The focus was on innovative methods for the biological characterization of plant extracts or



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essential oils and the evaluation of the safety and toxicological profile of plant extracts and essential oils with a central role in health. The event agenda included theoretical sessions during the first three days and practical sessions in the last two days.

On the first day, the following activities took place: Registration of participants, welcome speech by the project manager, Prof. Cristina Adriana Dehelean; Presentation of the host institution, the University of Medicine and Pharmacy "Victor Babes" in Timisoara, Faculty of Pharmacy; Discussions about the event program and organizational issues. A brief presentation of the EURO-PLANT-ACT project was made, followed by the presentation "*Pharmacological action and effects on health exerted by natural products derived from medicinal plants*" (Project Manager Prof. Cristina Dehelean).

On the second day, presentations continued as follows: *Medicinal plants cultivated in Romania* (P1 – USVT, Prof. Georgeta Pop), *Use of wild and cultivated medicinal plants in allelopathy* (P2 – UNIOS, Prof. Marija Ravlik), *Influence of geolocation on the composition of phytocomplexes* (Coordinator P3 Prof. Filomena Conforti), *The use of medicinal plants in the bakery industry* (Coordinator P4, Engineer Daniela Voica).

The third day brought discussions on: *Medicinal plants with proven effectiveness* against medical pathogenic bacterial strains (P1 – USVT, Lecturer Diana Obistioiu), *Polyphagous fungal pathogens as causative agents of diseases of medicinal and cultivated plants* (P2 – UNIOS, Prof. Jasenka Cosic), *Interactions between supplements/foods and drugs* (P3 – UNICAL, Prof. Giancarlo Statti), *Medicinal plants as functional ingredients in the pastry industry* (P4 – ROMPAN, Dana Avram).

At the end of each theoretical day, a working group meeting took place, and the days concluded with discussions and conclusions related to the topics covered.

In the last two days of the training, practical activities were coordinated by Associate Prof. Iulia Pînzaru: *Innovative experimental methods - in vitro evaluation of bioactive principles – Part 1* (CO – UMFVBT, Assoc. Prof. Iulia Pînzaru, Lecturer Ioana Macașoi, Lecturer Daliana Minda, Lecturer George Drăghici), *Innovative experimental methods – in vitro evaluation of bioactive principles – Part 2* (CO – UMFVBT, Assoc. Prof. Iulia Pînzaru, Lecturer George Drăghici), *Innovative experimental methods* – *in vitro evaluation of bioactive principles – Part 2* (CO – UMFVBT, Assoc. Prof. Iulia Pînzaru, Lecturer Ioana Macașoi, Lecturer Daliana Minda, Lecturer George Drăghici), *Innovative experimental methods – in vivo evaluation of bioactive principles – Part 1* (CO – UMFVBT, Assoc. Prof. Iulia Pînzaru, Lecturer Ioana Macașoi, Lecturer Daliana Minda, Lecturer Daliana Minda, Ioana Macașoi, Ioana 1000 – 1000 (CO – UMFVBT, Assoc. Prof. Iulia Pînzaru, Lecturer Ioana Macașoi, Lecturer Ioana Macașoi, Lecturer Ioana Macașoi, Ioana Mac



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Minda, Lecturer George Drăghici), *Innovative experimental methods – in vivo evaluation of bioactive principles – Part 2* (CO – UMFVBT, Assoc. Prof. Iulia Pînzaru, Lecturer Ioana Macașoi, Lecturer Daliana Minda, Lecturer George Drăghici).

The expert training program achieved its goal of exchanging best practices and training specialists from complementary fields in managing the central role of medicinal plants. Thus, agricultural specialists presented data on the cultivation and characterization of medicinal plant species in the current context of globalization and climate change, pharmacists and toxicologists shared knowledge on human health management based on medicinal plant products (plant extracts, essential oils, dietary supplements, etc.), presenting current methods of pharmacotoxicological and safety profile evaluation. Meanwhile, food specialists presented data related to the preparation of healthy foods, nutritional characterization, and the relationship with medicinal plants and their products.

Practical and educational activities were ensured with the participation of professors and specialists from each project team. Emphasis was also placed on the importance and development of entrepreneurship, encouraging more active participation in society and increasing professional development opportunities. Following the training activities, knowledge assessment tests were developed, participation certificates were issued, and each participant completed a questionnaire to evaluate the actions and knowledge gained.

The associated partners ensured the link between proper professional training and the labor market. Both E-lite Nutrition and Favisan supported the theoretical activities aimed at consolidating theoretical and practical knowledge and significantly developing skills in innovation and specific usage in the field of medicinal plants, incorporating them into final products with multiple uses: phytotherapy, nutraceuticals, agriculture (through actions protecting the environment and natural resources).

The direct beneficiaries of the expert training program were project members selected during the project submission, based on skills in the management of medicinal plants through rational cultivation, and the use of plant products in food, nutrition, and agriculture. The outcome of this learning activity, expert training programs, is also reflected in the deepening of knowledge among specialists in complementary fields, thanks to the interdisciplinary and multicultural exchange of knowledge.











