

PLENARY PRESENTATIONS

PHYTOCHEMICAL INVESTIGATION OF SELECTED PLANT SPECIES FROM THE FLORA OF AZERBAIJAN AND THEIR APPLICATIONS

Tahir Suleymanov

Azerbaijan Medical University, Department of Pharmaceutical Chemistry

The search for biologically active substances among plant resources, the identification of new natural sources, and the development of rational and effective medicinal products represent important objectives and relevant areas of pharmaceutical science. The flora of Azerbaijan is characterized by considerable plant diversity and a rich variety of botanical resources. However, these natural resources are currently not being utilized to their full potential to meet the needs of medicine and the national economy.

The aim of this study was to identify promising medicinal plant species containing lipids, essential oils, and phenolic compounds; assess their raw-material potential; isolate and identify biologically active substances; evaluate their pharmacological activity; develop a novel pharmaceutical dosage form; investigate its technological characteristics; establish the technological regulations for industrial production; and prepare the relevant regulatory and technical documentation for the plant raw material, active substance, and pharmaceutical dosage form.

For the first time, 20 plant species growing and cultivated in Azerbaijan were investigated. Among the plants studied, the following promising lipid-containing species were identified: *Fagus orientalis* L., *Carthamus tinctorius* L., and *Cucurbita pepo*.

Based on lipids isolated from the fruits of Oriental beech (*Fagus orientalis* L.), a novel pharmaceutical dosage form, the ointment Fagolin, was developed, together with the technological regulations for its industrial production. Pharmacological studies demonstrated that Fagolin ointment possesses pronounced wound-healing and reparative properties.

Temporary Pharmacopoeial Monographs were developed and approved for the following materials: Oriental beech fruits, Oriental beech oil as an active substance, and the pharmaceutical dosage form “Fagolin”.

The relevant documentation for Fagolin ointment was registered by the Ministry of Health of the Republic of Azerbaijan under registration number SN 012 0051, and the product was authorized for industrial production. At present, Fagolin ointment is manufactured by the pharmaceutical enterprise “Azərfarm LTD” and is used as a wound-healing and reparative agent.