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NATIONAL UNIVERSITY OF PHARMACY

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Abstracts of XXV International Scientific
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For a wide audience of scientists and pharmaceutaical and medicinal employees.

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in men have the positive effect of such plants as *Anacyclus pyrethrum*, *Argyreia speciosa*, *Asphaltum purified*, *Astercantha longifolia*, *Bombax malabaricum*, *Celastrus paniculatus*, *Cinnamomum cassia*, *Crocus sativus*, *Gossypium indicum*, *Lactuca scariola*, *Mucuna pruriens*, *Mutilla occidentalis*, *Myristica fragrans*, *Orchis mascula*, *Pheritima posthuma*, etc.

Conclusions. Currently, the social importance and relevance of the regulators of erectile function, given their contribution to the maintenance of reproductive health of the population, are very high. Undoubtedly, joint efforts of manufacturers of phytopreparations and biologically active additives, scientists, and specialists regulating the registration of phytopreparations and biologically active additives are needed to increase the level of rendering medical, preventive and health-improving assistance to the population.

PERSPECTIVES OF RESEARCH OF BIOLOGICAL ACTIVITY OF SUBSTANCE OF HELICHRYSUM BRACTEATUM

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Introduction. The creation of medicines and dietary supplements on the basis of medicinal plant material is an important area of scientific activity in present time. One of the promising plants for research is the immortelle (*Helichrysum bracteatum*) (Asteraceae). This plant is widely cultivated in Ukraine, where many interesting decorative varieties are created.

The **aim** of the work is to conduct a preliminary phytochemical research of the immortelle to determine the chemical composition of biologically active substances.

Materials and methods. Different methods of chromatography were used for the analysis of phenolic compounds: thin-layer and paper, and specific reagents. The determination of flavonoids and hydroxycinnamic acids was carried out in comparison with probable samples. As a material for analysis, alcoholic extract of grass, flowers and roots of the immortelle was used, and extracts obtained after acid hydrolysis. Extraction was carried out with 70% alcohol (1: 5).

Solvent systems were used for the separation of the compounds: acetic acid 2, 15 and 30%, butanol-acetic acid-water (4: 1: 2, 4: 1: 5), chloroform-methanol-water 24: 14: 3, toluene-ethylformate - formic acid 50:40:10. Acid hydrolyzate of alcohol extract of grass, flowers and roots was also researched for the determination of aglycones, which were also identified by chromatography.

Results and discussion. We have found that immortelle contains hydroxycinnamic acids, flavonoids, flavonglicosides and other biologically active substances in its composition. 15 phenolic derivatives were identified, including coffee and chlorogenic acids, luteolin derivatives, including O- and C-glycosides, as well as aurons and their glycosides. The obtained UV spectrum of the extract indicates the possibility of determining the content of the amount of phenolic compounds in terms of luteolin.

Conclusions. The obtained results point to the prospect of studies of the immortelle, for the purpose of creating drugs and dietary supplements.

DANDELION EXTRACT USE IN MEDICINE

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Introduction. While many people think of the dandelion (*Taraxacum officinale*) as a pesky weed, it is chock full of vitamins A, B, C, and D, as well as minerals, such as iron, potassium, and zinc. Dandelion leaves are used to add flavor to salads, sandwiches, and teas. The roots are used in some coffee substitutes, and the flowers are used to make wines.

In the past, dandelion roots and leaves were used to treat liver problems. Native Americans also boiled dandelion in water and took it to treat kidney disease, swelling, skin problems, heartburn, and upset stomach. In traditional Chinese medicine (TCM), dandelion has been used to treat stomach problems, appendicitis, and breast problems, such as inflammation or lack of milk flow. In Europe, dandelion was used in remedies for fever, boils, eye problems, diabetes, and diarrhea.

Aim. The aim of the study was to study the prospects of using the extract of dandelion in the treatment of metabolic diseases

The leaves are used to stimulate the appetite and help digestion. Dandelion flower has antioxidant properties. Dandelion may also help improve the immune system. Herbalists use dandelion root to detoxify the liver and gallbladder, and dandelion leaves to help kidney function.

Most scientific studies of dandelion have been in animals, not people. Traditionally, dandelion has been used as a diuretic, to increase the amount of urine and eliminate fluid in your body. It has been used for many conditions where a diuretic might help, such as liver problems and high blood pressure. However, there is no good research on using dandelion as a diuretic in people.

Fresh or dried dandelion herb is also used as a mild appetite stimulant, and to improve upset stomach. The root of the dandelion plant may act as a mild laxative and has been used to improve digestion. Preliminary research suggests that dandelion may help improve liver and gallbladder function. But this study was not well designed.

Preliminary animal studies suggest that dandelion may help normalize blood sugar levels and lower total cholesterol and triglycerides while raising HDL (good) cholesterol in diabetic mice. But not all the animal studies have found a positive effect on blood sugar. Researchers need to see if dandelion will work in people.

Conclusions. A few animal studies also suggest that dandelion might help fight inflammation. Thus, the use of dandelion extract in the treatment of metabolic diseases is promising.

ORGANIC ACIDS OF *IRIS GRAMINEA* L.

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Introduction. The genus *Iris* belongs to the family *Irideaceae*, comprising of 300 species, of which 16 species are found in Ukraine and several species are ornamental. In recent years, *Iris* species have gained great popularity in the perfume and cosmetic industries due to their sweet fragrance. Plants of the genus *Iris* have been previously recognized as rich sources of secondary metabolites (Kassak P., 2012). *Iris* species are used in the treatments of cancer, inflammation and bacterial and viral infections. Many compounds isolated from these species were found to have antineoplastic, antioxidant, antiplasmodial, and antituberculosis properties (Kukula-Koch, 2013; Khare, 2007). Previous phytochemical investigations on the *Iris* species have resulted in the isolation of a variety of compounds including flavonoids, isoflavonoids, isoflavonoid-glycosides, benzoquinones, triterpenoids and stillbene glycosides (Mykhailenko, 2017; Wang & Zhao, 2010).

Organic acids have a wide range of pharmacological effects on the human body, benzoic and salicylic acids exhibit antibacterial activity, hydroxycinnamic acids and their derivatives - anti-inflammatory, malic acid promotes the absorption of iron. Continuing to study plants of the genus *Iris*, we chose *Iris graminea*. It is a belonging to the subgenus *Limniris*, in particular the series *Spuriae*. It is a rhizomatous perennial, with purple or violet blue flowers almost hidden by narrow, grass-like leaves, and a plum scented fragrance. It is cultivated as an ornamental plant in temperate regions. It has several common names, including Grass-Leaved Flag, Grass leaved Iris, Plum Iris and Plum tart Iris (because of the scent). This species naturally occurs in the southern half of Europe, from Spain and France in the West to Ukraine and the Caucasus in the East.

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