

MINISTRY OF PUBLIC HEALTH OF UKRAINE  
NATIONAL UNIVERSITY OF PHARMACY

**TOPICAL ISSUES OF NEW  
DRUGS DEVELOPMENT**

Abstracts of XXV International Scientific  
And Practical Conference  
Of Young Scientists And Student

April 18-20, 2018

Kharkiv

Kharkiv  
NUPh  
2018

**Editorial board:** prof. A. A. Kotvitska, prof. V. P. Chernykh, prof. A. L. Zagayko, S. Yu. Danylchenko

**Compilers:** K. Y. Netosova, I. O. Surikova, O. S. Prokopenko, A. S. Materiienko, D. V. Lytkin

**Topical** issues of new drugs development: Abstracts of XXV International Scientific And Practical Conference Of Young Scientists And Student (Kharkiv, April 18-20, 2018). – Kharkiv: NUPh, 2018. – 554 p.

ISSN 2616-6615

Book of Abstracts includes materials of Scientific and Practical Conference of Young Scientists and Students “Topical issues of new drugs development”. Materials are grouped according to the main directions of scientific, research and educational work of the National University of Pharmacy. Theoretical and practical aspects of the synthesis of biologically active compounds and development of medicinal substances on their basis; standardization of drugs, pharmaceutical and chemical-technological analysis, the study of raw materials and herbal remedies development, modern drug technology and extemporal recipe; biotechnology in pharmacy, modern advances in pharmaceutical microbiology and immunology, clinical trials of new drugs, pharmaceutical care for prescription and OTC-drugs, evidence-based medicine, modern pharmacotherapy, socio-economic studies in pharmacy, marketing management and pharmacoeconomics during the development, implementation and use of drugs, quality management in development, production and trafficking of drugs; information technologies in pharmacy and medicine; basics of pedagogy and psychology; social science; philology are presented. Also in book there are published material of All-ukrainian contest of student scientific work on speciality “Pharmacy, Industrial Pharmacy”.

For a wide audience of scientists and pharmaceutical and medicinal employees.

**UDC 615.1**

## PROSPECTS OF MANGO PLANT MATERIAL APPLICATION IN PHARMACY

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**Introduction.** One of the important tasks of modern pharmacy is the search for new species of medicinal plants with sufficient raw materials base for creation of effective drugs on their basis, the organization of industrial production with the use of complex processing of raw materials, and developing appropriate methods of quality control. Our attention was drawn to the plant material of Indian mango - *Mangifera indica*, a representative of the *Mango* genus, *Anacardiaceae* family, that is cultivated worldwide in areas with suitable climate.

**Aim.** To conduct a literature review on raw materials of *Mangifera indica*.

**Materials and methods.** Analysis of available literature sources over the past 10 years.

**Results and discussion.** This is an evergreen tree, which reaches forty feet in height. There are also dwarf varieties. Young leaves have nice reddish, and ripe ones – dark red color. The flowers are small, yellow, collected in a small panicle. The fruits have bright yellow to orange flesh with smooth skin. Some varieties of this plant can pollinate themselves. If the night temperature is below 13 degrees or there is a high humidity level, the fruits won't just set. The seeds of the fruit can also be eaten roasted or boiled. The tree loves light and air, which is why it is planted in an open area. Mangoes are rich in vitamins A, B, C, D and E. Moreover, the vitamin C content can reach up to 175 mg/100 g of fruit flesh. In addition, the fruits are characterized by a high content of such sugars as sucrose, xylose, glucose, sedoheptulose, fructose, maltose, mannoheptose. Mangoes are rich in essential amino acids and carotenoids. Minerals that are abundant in mango fruits are calcium, phosphorus, iron. This is enough to assume that Mango has a rich mineral composition. The fruit peel and leaves of mango tree contain tannin; the leaves also have a strong herbal tranquilizer. Mango is used for strengthening the immune system, healing of skin cells, slowing the ageing process. It is believed that the fruit prevents and relieves stress, tension and improves mood. Dyspepsia, dysentery, diarrhea, hemorrhoids, constipation are well cured with the pulp of unripe mango.

**Conclusions.** The plant material of Indian mango is a promising material for further study and development of new drugs based on it.

## PHYTOCHEMICAL ANALYSIS OF THE LEAVES OF MALUS DOMESTICA WILLIAMS PRIDE VARIETY

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**Introduction.** Currently, much attention is paid to the study of medicinal plants, which are typical representatives of the flora of Ukraine and is widely cultivated in its territory. One of such plants is the domesticated Apple – *Malus domestica* Borkh. of the rose family – *Rosaceae*. Recent studies have shown that apples contain lots of vitamins C and P, flavonoids, carbohydrates and organic acids. They are useful for people with atherosclerosis, hypertension, rheumatism. Sour apples are recommended for diabetes and obesity, diseases of the gastrointestinal tract with low acidity, iron deficiency anemia; sweet – in cardiovascular diseases, gout, kidney stones and gall bladder. On the territory of Ukraine is grown a large number of different Apple varieties – White filling, glory to the Winners, Snow Calvin and the like. But the chemical composition of biologically active substances of most varieties is unclear, which leads to the relevance of the chosen research topics.

**Aim.** The aim of this work was the phytochemical investigation of the leaves of apple Williams Pride variety.

**Materials and methods.** The presence of biologically active substances was ascertained by qualitative reactions and chromatography on paper and thin layer of sorbent. Quantitative determination of

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