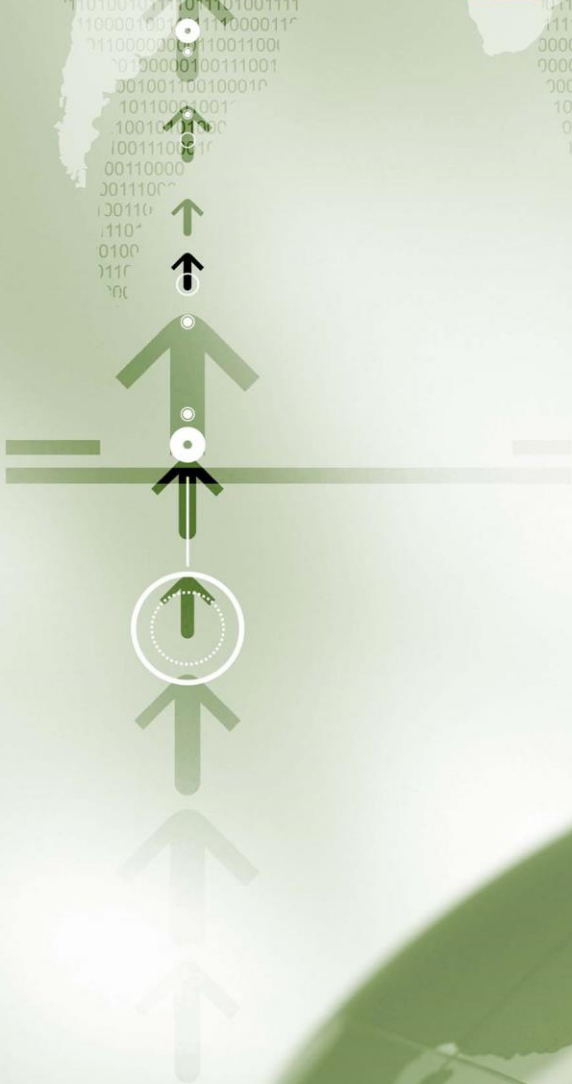


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«Global Issues and Decisions»
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In physics, nuclear fusion is the process by which two or more atomic nuclei combine to form a single nucleus. It is accompanied by the release of energy according to the mass-energy equivalence principle. The fusion of two light nuclei to form a heavier nucleus is generally exothermic, releasing energy. The fusion of heavy nuclei to form a lighter nucleus is generally endothermic, absorbing energy. Nuclear fusion is the primary process by which energy is generated in stars and in nuclear reactors. The fusion of two light nuclei to form a heavier nucleus is generally exothermic, releasing energy. The fusion of heavy nuclei to form a lighter nucleus is generally endothermic, absorbing energy. Nuclear fusion is the primary process by which energy is generated in stars and in nuclear reactors.

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THE RELEVANCE OF THE DEVELOPMENT OF A VITAMIN PRODUCT FROM PLANT RAW MATERIALS

Zamkova A.V.
Borysyuk I.Yu
Molodan Y.O.
Fizor N.S.
Valivodz I.P.
Rokun D.-M.V.

Department of drug technology
Odessa National Medical University, Odesa, Ukraine
zamkovaya@gmail.com

The leading task of modern pharmacy is the creation and introduction of new effective drugs and the improvement of existing ones. At the same time, the development of easy-to-use, rational and therapeutically effective means that do not show side effects on the human body remains a priority. Unfavorable environmental and social effects on the human body, deterioration of living conditions and reduction of energy consumption determine the prevalence of vitamin deficiency. As a result, the number of cardiovascular diseases, gastrointestinal tract disorders, diabetes mellitus, obesity, etc., which requires preventive or therapeutic use of vitamins, is increasing.

Vitamin preparations are biologically active supplements that are not synthesized by the body and enter the body from the outside, mainly with food. Vitamin preparations are used for treatment when the body cannot get the required amount of nutrients from food or when their assimilation is impaired. In this regard, the development and creation of vitamin preparations of natural origin is relevant.

A promising raw material for the development of a vitamin preparation are the fruits of black currant *Ribes nigrum* L, which are harvested in dry weather, after ripening in July-August, sorted, cleaned of impurities, dried at a temperature of 35-40 °C, then 55-60 °C on the mattress. The fruits of black currant *Ribes nigrum* L contain phenolic compounds (delphinides, cyanide glycosides), phenolic acids (chlorogenic, neochlorogenic), catechins (catechins, halocatechin), flavonoids in the fruits of black currant *Ribes nigrum* L are represented by rutin, myricetin, quercetin, quercitrin, kaempferol, hyperoside, isoquercitrin, tocopherols, vitamins (C, P, B₁, B₂, B₆, B₉), minerals, and also accumulate a significant amount of potassium and iron. Among the carbohydrates, black currant fruits contain sugars: 4.2%, fructose, 1.5% glucose and 1.0% sucrose, and a small amount of fiber and pectin substances. Blackcurrant fruits accumulate up to 4.5% of organic acids (malic, citric, tartaric, sorrel, succinic and henna). Biologically active substances of blackcurrants show antioxidant, anti-inflammatory, antimicrobial, antiviral, capillary-strengthening, anti-allergic, tonic, antispasmodic, diaphoretic, diuretic, detoxifying and astringent properties.

Currant fruits are used in traditional medicine for the treatment of gout, urethritis, urolithiasis, cystitis, rheumatism, osteochondrosis, joint and muscle pain, as well as for the treatment of eczema and furunculosis. Blackcurrant fruits are also used as an additional remedy for the treatment of intestinal dysbacteriosis, gastritis, cholecystitis, and enterocolitis.

The main form of application of viburnum fruits is a decoction or infusion. However, the analysis of statistical data shows that such dosage forms, although economically profitable for pharmaceutical companies, are economically profitable for pharmaceutical companies, but not very convenient for use in everyday life. Due to the fast pace of life, patients have to spend time to brew and brew correctly, which leads to failure to adhere to the correct regimen of taking drugs, as well as ineffective treatment and prevention.

Having analyzed the pharmaceutical market, we came to the conclusion that it is promising to develop a new dosage form of ordinary viburnum in the form of an oral dosage form - hard

gelatin capsules. We proposed the most optimal composition of capsules containing mg of dry extract of black currant fruits (*Ribes nigrum* L), MCC 198 mg, corn starch - 115 mg, talc - 2 mg, Aerosil - 2 mg, magnesium stearate - 3 mg.

Thus, the vitamin preparation offered by us, due to the presence of a wide range of BAR, will contribute to the elimination of vitamin deficiency, will be anti-inflammatory, and will reduce the damaging effect of toxins and other aggressive factors.