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Cover photo was made by Gabrielė Balčiūnaitė.

'Piligrim'. The highest total anthocyanin content (7.90±0.004 mg/g) was determined in 'Baiwjay' cranberry samples and the lowest content (2.21±0.01 mg/g) - in 'Holliston' samples.

In the future the research of cranberry fruits individual anthocyanin composition will be performed by using HPLC.

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Determination of triterpenoids' content in pokeweed root

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For centuries plants have been the source of biologically active agents used for the treatment and prevention of various diseases. Along with the plants which are widely used in medical practice nowadays, the plants with different diverse effects were also used for the preparation of tinctures in homeopathy. One of such plants is pokeweed (*Phytolacca decandra* L, syn. *Phytolacca americana* L.), the mother tincture of which is used in the treatment of rheumatism, conjunctivitis, psoriasis and other skin diseases, and can be potentially used as anti-melanoma drug [1]. In traditional Chinese medicine two species are used – *Phytolacca acinosa* Roxb. and *Phytolacca americana* L., dried roots of which show positive effect in the treatment of tumors, edema, bronchitis and abscesses [2].

According to the literature data, the *Phytolacca* genus is rich in compounds of triterpenoidal nature. The aglycones were reported to be represented by oleanolic, phytolaccagenic, serjanic, jaligonic, and esculentagenic acids, as well as hederagenin, bayogenin and phytolaccagenin [3]. The glycosidic parts of the molecules are mainly represented by glucose, xylose, mannose, and rhamnose [4].

Thus, the detailed study of the pokeweed plant material growing in Ukraine is of current interest. The roots of American pokeweed (*Phytolacca americana* L.) collected in 2015 were chosen as the plant material. The analysis was carried out using GC-MS method (Agilent 6890 / 5973 GC-MS System) [5].

The experiment allowed determining the quantity of three compounds of triterpenoidal structure – two phytosterols and a derivative of lanostene. The content of β-sitosterol in the pokeweed root comprised 20.6 mg/kg, the content of stigmast-7-en-3-ol was 8.7 mg/kg, and the content of 9,19-cyclolanost-24-en-3-ol amounted to 3.1 mg/kg.

Since phytosterols in moderate and high doses show positive effect on cholesterol metabolism [6], the herbal medicines on the basis of pokeweed root might potentially be used as antisclerotic agents.

The results obtained will be used in working out the quality control methods for pokeweed roots since triterpenoids comprise an important class of biologically active compounds in the studied plant material.

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Grounds of the pharmaceutical development of dental gels with ornidazole

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In recent decades there is a trend of steady growth of various periodontal pathologies. Treatment and prevention of periodontal disease include a comprehensive approach taking into account the individual approach to each patient. The topical treatment of periodontal diseases embraces antimicrobial substances, enzymes in the combination with substances that enhance tissue regeneration. Dental gels are effective in applications and allow to include a combination of different active pharmaceutical ingredients (APIs) for chemical structure. In Ukraine there are no registered gels based on the combination of ornidazole, chlorhexidine and essential oil of *Salvia officinalis* for local application in periodontology. At the same time, chlorhexidine and medicinal products of *Salvia officinalis* including its essential oil are APIs of registered medicinal products for topical application in stomatology.

As a results of technological and microbiological biopharmaceutical studies the composition and technology of the laboratory batches technology of the gingival gel based on ornidazole, chlorhexidine bigluconate and essential oils have been developed and justified. The feature of the technology is the preliminary preparation of the concentrated base of carbopol in connection with its long gelation; then preparation of a gel base by diluting the concentrated base of carbopol with purified water up to a necessary concentration of carbopol; introducing ornidazole into the gel base in the form of a water-propylene glycol