

## PHARMACEUTICAL INVESTIGATIONS OF *PHALLUS IMPUDICUS* MUSHROOM LIQUID EXTRACTIONS

Hnatiuk O.O.

Scientific supervisors prof. Gladukh Ie.V., assoc. prof. Kukhtenko H.P.

National University of Pharmacy, Kharkiv, Ukraine

galinakukh@gmail.com

**Introduction.** Today, the efforts of many scientists from different countries are aimed at finding medicines effective in oncological diseases. Despite the huge investments that are being made to address this problem, the number of cancer patients is steadily increasing.

The last 50 years in the studies of mycologists, biotechnologists, physicians, more and more attention is paid to macromycetes as potential producers of biologically active substances. Mushrooms are most widely used for medical purposes in the countries of East Asia, where today 272 types of fungi are used, and another 200 species are studied as promising for the treatment of various diseases – viral, infectious, oncological, cardiovascular. Among the domestic fungi the most attention is paid to the antitumor action of basidial mushrooms – *Pleurotus ostreatus* Fr. Kumm. (oyster mushroom), *Phallus impudicus* (L.) Pers. (common stinkhorn), *Flammulina velutipes* (Fr.) Sing. (winter mushroom) that occur in the forests of Ukraine.

**Aim** of the work was to study the phyto-chemical composition of the liquid extracts of the fungus *Phallus impudicus*.

**Materials and methods.** The fresh raw *Phallus impudicus* fungus collected in the Polissya region of Ukraine in the summer of 2018 was used in the work. As extragens, ethanol of different concentrations of 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80% and 90% was used. The amount of extractives was determined according to the generally accepted methodology described in the scientific literature.

**Results.** According to a literature study, *Phallus impudicus* fungus contains such biologically active substances as: proteins, polysaccharides, flavonoids, carotenoids and triterpenes. In determining the amount of extractives extracted from the fresh raw material of the fungus *Phallus impudicus*, it was found that the maximum yield of biologically active substances provides the use of 10%, 20% and 30% ethanol. This can be explained by the removal of predominantly water-soluble biologically active substances such as polysaccharides. In samples with ethanol, concentrations of 80% and 90% of the extractives were not observed at all.

**Conclusions.** The study of phytochemical composition of *Phallus impudicus* fungus requires detailed investigation and is a promising area of scientific research.

## THE DETERMINATION OF CRITICAL PARAMETERS OF NASAL GEL'S MANUFACTURE FOR THE TREATMENT OF VIRAL RHINITIS

Karpenko Irina A., Rukhmakova Olga A., Yarnykh Tatyana G.

Scientific supervisor: Doctor of Pharmacy, Associate Professor, Rukhmakova O. A.

National University of Pharmacy, Kharkiv, Ukraine

rukhmakovaolga@gmail.com

**Introduction.** It is known that the process of obtaining drugs is a complex activity associated with raw materials, finished products, production processes, equipment, etc. When scaling technology it is important to determine the correct technological strategy and establish the critical parameters of the production process, finished product and intermediates. Critical parameters of the half-finished product and the developed nasal gel can be all the quality indicators given in the draft of quality control methods. All active, auxiliary and primary packaging materials must comply with the requirements of regulatory documents. Inconsistency with these requirements leads to the receipt of poor-quality finished product. Critical operations and process parameters are operations in case of violation of which corrections are impossible, because of which the quality of products will not meet the requirements of quality control methods. Failure to observe the established parameters may affect the physical-chemical and pharmacological properties of the medicine. The **aim** of this work is the determination of critical parameters of nasal gel's manufacture for the treatment of viral rhinitis.