



INTERNATIONAL CONFERENCE



**10th International Pharmaceutical  
Conference  
„Science and Practice 2019”**



**ABSTRACT BOOK**

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**Kaunas, Lithuania**

**The 10th International Pharmaceutical Conference „Science and Practice 2019” is organized by Lithuanian University of Health Sciences, Faculty of Pharmacy.**

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Language of abstracts was not corrected.

## **WELCOME**

*Dear participants and guests of the conference,*

On behalf of the organizing committee and the Lithuanian University of Health Sciences, it's my great pleasure to welcome you to the **10th International Pharmaceutical Conference „Science and Practice 2019”** in the Lithuanian University of Health Sciences, Faculty of Pharmacy! The 10th International Pharmaceutical Conference is dedicated to the 200th Anniversary of the first Pharmacy Association in Lithuania. From today's point of view, the history of Pharmacy helps to explore the broad scope of the pharmaceutical field, it stimulates a professional esprit de corps.

Pharmacists are medicine experts and have deep and long-lasting learning behind their knowledge base. It begins at the University and continues during all life, conducting relevant scientific research and efficient practical training. The 10th International Pharmaceutical Conference will give the opportunity to meet experts of different Pharmacy fields and from different European countries to exchange ideas and experiences and most of all, to develop professionally. The 10th International Pharmaceutical Conference scientific program will foster discussions and hopes to inspire participants to initiate collaborations within and across disciplines for the advancement of Pharmacy field.

I welcome you to the Lithuanian University of Health Sciences!

**On behalf of the organizing and scientific committee,**

**Prof. Ramune Morkuniene**

**Dean of the Faculty of Pharmacy**

**Lithuanian University of Health Sciences**

# DEDICATION

## **Conference dedicated to the 200th anniversary of the first pharmacy association in Lithuania**

In 1819, Vilnius pharmacists founded the Department of Pharmacy of the Vilnius Medical Society (established in 1805). This community set specific goals: to provide the public with high-quality medications, to prevent the falsification of medical products, and to search for new medicinal substances. The priorities included scientific research and the dissemination of scientific knowledge. The members of this pharmaceutical organization published a periodical journal “Pamiętnik Farmaceutyczny Wileński” (“Notes of Vilnius Pharmacy”) during 1820-1822. Practicing pharmacists performed experiments in their laboratories and presented their results to colleagues in reports that were published in the press. The community of pharmacists subscribed to newspapers of European and Tsarist Russian pharmacists’ associations and relevant publications were translated and published in the local press.

After the rebellion of 1830–1831, the Tsarist government closed Vilnius University. The Academy of Medical Surgery was reorganized from the University. It existed for ten years but, in 1842, it was closed as well. This gradually led to the loss of scientific knowledge and diminished social activities. Pharmacists began to limit themselves to pharmaceutical practice and business interests.

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## The study of biologically active substances and standardization of thick extract of the feverfew herb

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**Introduction:** The search of the new plant sources of biologically active substances is an actual issue of the pharmaceutical science. Herbal medicines occupy approximately 30% of the global pharmaceutical market and their part will increase in the future. Plants with significant raw material base and successful experience in folk medicine are interesting for science. [1]. Feverfew (*Tanacetum parthenium* (L.) Schultz Bip.) is one of the representatives. We have established the chemical content and technological characteristics of the feverfew herb before. As a result of the study it was identified that phenolic compounds, such as hydroxycinnamic acids and flavonoids are contained in large quantities in the raw material. So the aim of this research was creating of the thick extract of the feverfew herb, the study of its chemical content and standardization

**Materials and methods:** The object of the study was herb maize grass. The extract was obtained by percolation with a following evaporation using a vacuum-evaporating apparatus. The qualitative composition and quantitative content of phenolic compounds were investigated by thin layer chromatography (TLC) and spectroscopy using unified methods of the State Pharmacopoeia of Ukraine (SPhU). The general articles of SPhU to determine the dry residue, weight loss on drying, heavy metals content were used [2].

**Results:** A thick extract of the feverfew herb using 70 % ethanol was obtained. As a result of the extract chromatographic profile analysis the zones at the level of chlorogenic and chicoric acids, luteolin, luteolin-7-glycoside and santine in comparison with the zones of standards were identified. The content of hydroxycinnamic acids was 12.75 %, flavonoids – 5.16 %, respectively. The obtained extract is a thick, viscous mass of a dark brown color with a characteristic specific odor. The extract was well soluble in water, ethanol, slightly soluble in methanol, practically insoluble in chloroform. The dry residue was 93.4 %, weight loss on drying – 8.4 %.

**Conclusions:** As a result of the study, a standardized thick extract of the feverfew herb was obtained. Analysis of the qualitative composition of the biologically active substances of the extract showed the presence of phenolic compounds. The content of hydroxycinnamic acids was 12.75%, flavonoids – 5.16%. The thick extract meets the requirements of the State Pharmacopoeia of Ukraine on indicators such as solubility, dry residue, weight loss on drying and heavy metals content, which makes it prospective in further pharmacological studies.

### References

1. Pareek A., Suthar M., Rathore G. S., Bansal V. (2011) Feverfew (*Tanacetum parthenium* L.): A systematic review. *Pharmacognosy Reviews*, № 5 (9), 103 – 110
2. State Pharmacopoeia of Ukraine. SOE “Ukrainian Scientific Pharmacopoeial Center of Medicines” .– 1nd ed. – V. 3, 2001. 530 p..