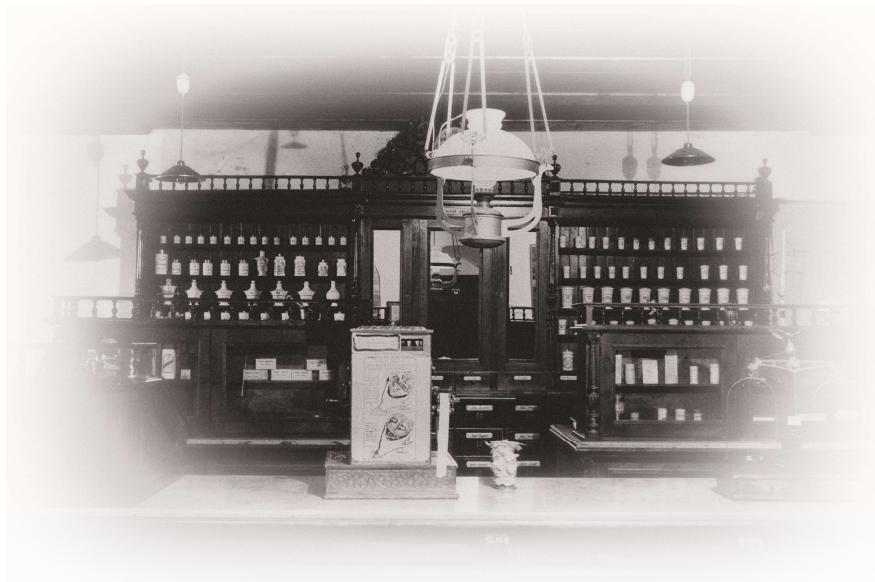




## The 8th International Conference on Pharmaceutical Sciences and Pharmacy Practice

**dedicated to the 80th anniversary of the  
Museum of History of Lithuanian  
Medicine and Pharmacy**

Book of abstracts



**December 15, 2017  
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**The International Conference on Pharmaceutical Sciences and Pharmacy practice is organized by the Faculty of Pharmacy of Lithuanian Health Sciences University in collaboration with Lithuanian Pharmaceutical Association and LSMU FF Alumni Association.**

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# CONFERENCE PROGRAMME

Auditorium A-203, Faculty of Pharmacy, Lithuanian University of Health Sciences,  
Sukilėlių street 13, LT-50162 Kaunas, Lithuania

8:00-9:00	<b>Registration</b>
<b>PLENARY SESSION</b>	
<b>Chairs:</b> Prof. dr. Ramunė Morkūnienė, Natalia Sergeevna Gurina	
9:00-9:10	<b>Opening and welcome speech</b> Prof. habil. dr. Vaiva Lesauskaitė, LUHS Vice Rector for Science, Lithuania
9:10-9:30	<i>The 80<sup>th</sup> anniversary of The Pharmacy Museum of Lithuania: origins, present and future vision</i> Assoc. Prof. Tauras Antanas Mekas, Director of The Museum of History of Lithuanian Medicine and Pharmacy, Lithuania
9:30-9:50	<i>News of Pharmacy Policy</i> Gita Krukiienė, Director of Pharmacy Department of Ministry of Health, Lithuania
9:50-10:10	<i>Pharmaceutical supply via the healthcare system of Republic of Belarus</i> Prof. dr. Natalia Sergeevna Gurina, The Dean of Faculty of Pharmacy, Minsk University of Medicine, Belarus
10:10-10:30	<i>Pharmacy education and practice: is the gap between them?</i> Prof. dr. Ramunė Morkūnienė, The Dean of Faculty of Pharmacy, LUHS, Lithuania
10:30-10:40	<i>Integration possibilities of science and business at LUHS Faculty of Pharmacy</i> Prof. Dr. Jurga Bernatonienė, Department of Drug technology and social pharmacy, LUHS, Lithuania
10:40-11:00	<i>The role of the World Pharmaceutical Museums in the development of biomedical sciences</i> Prof. habil. dr. Eduardas Tarasevičius, President of Lithuanian Pharmaceutical Society, Lithuania
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11:50-12:10	<i>100 Days "Pharmacy for pharmacist: Revolution or Stabilization of the Pharmaceutical Market?"</i> Elżbieta Piotrowska-Rutkowska, dr. Jerzy Lazowski, Polish Chamber of Pharmacy, Poland
12:10-12:30	<i>Development of instrumental analytical methods and their application for molecular analysis of biological, pharmaceutical objects, synthetic products and environment</i> Prof. habil. dr. Audrius Sigitas Maruška, Head of Instrumental Analysis Open Access Center, Faculty of Natural Sciences, Vytautas Magnus University, Lithuania

12:30-12:50	<i>Representation of pharmaceutical heritage in the Republic of Belarus</i> <b>Valentina Sasonkina</b> , The Pharmacy Faculty of the Minsk Medical University, Belarus
12:50-13:10	<i>The importance of medicinal (aromatic) plants for science, studies and human health</i> Prof. Dr. <b>Ona Ragažinskienė</b> , Vytautas Magnus University, Kaunas botanical garden, Lithuania
13:10-13:30	<i>Stability estimation of compounding ointments in accordance with modern requirements</i> <b>Savchenko Lesia</b> , Associate Professor of Department of quality, standartization and certification of drugs, National University of Pharmacy, Ukraine
13:30-14:30	<b>Lunch</b>
<b>PHARMACY SCIENCE</b> <b>Chairs: Prof. Dr. Vilma Petrikaitė, Nataliia Hudz</b>	
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14:45-15:00	<i>Complex technological and biological studies of solutions for peritoneal dialysis at the stage of pharmaceutical development</i> <b>Nataliia Hudz</b> , Danylo Halytsky Lviv National Medical University, Lviv, Ukraine
15:00-15:15	<i>TLC and HPTLC application in an analytical laboratory using the CAMAG analytical system</i> <b>Mindaugas Marksas</b> , Department of Analytical and toxicological chemistry, LUHS, Lithuania
15:15-15:30	<i>Development of tumor-targeted nanotherapeutics</i> Prof. Dr. <b>Vilma Petrikaitė</b> , Department of Drug chemistry, LUHS, Lithuania
15:30-16:00	<b>PRESENTATIONS OF YOUNG RESEARCHERS</b>
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## ABSTRACTS OF POSTERS



### Substantiation of approaches to standardization of black poplar buds quality requirements

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Usage of plant raw materials is based not only on rational application of the newest practices, but also on the achievements of pharmacy in studying of composition and biological activity features of medicinal plants. The purpose of this work is systematization of data related to pharmacognosical and pharmacological researches of black poplar (*Populus nigra* L.) buds.

*Populus nigra* L. belongs to the Willow family and is widely represented throughout Southern and Central Europe, Central Asia, Northern America as well as Ukraine (rarely the Crimea and the Carpathians). This tree grows at rivers and lakes valleys, mainly in basins of such rivers as the Dnipro, the Seversky Donets, the Southern Bug.

Poplar buds are used as medicinal plant raw material and should be collected at the blossom of the tree (April). For collection purposes, small tree branches should be cut with pruners or saws, and then leaf buds should be broken off manually. After that buds should be dried in the shade outdoors first, for example under the shed with good ventilation. Then they are dried in the sun, spread thin on the paper or cloth (lay thickness is 12 cm), and mixed from time to time. The plant material consists of oblong-ovoid, pointed, bald, shiny green-yellow or brown-yellow buds, 1.5-2 cm long, the base width is near 4-6 mm. It has peculiar balsamic odor and bitter taste.

The chemical composition of black poplar buds includes: hydroxycinnamic acids (cinnamic acid, caffeic acid, ferulic acid, isoferulic acid, chlorogenic acid); their ethers, flavonoids (pinostrobin, pinocembrin, 2',6'-dihydroxy-4'-methoxydihydrochalcone, 2',6'-dihydroxy-4'-methoxychalcone, luteolin, apigenin, quercetin, kaempferol); phenolic compounds (salicylate glycosides, gallic acid derivatives); essential oil (near 0.5%) as main biologically active compounds; organic acids, waxes, lipids, and other compounds [1]. The part of ethanol soluble compounds averages 35–45% of the dried plant material's mass and depends on the phase of plant growth.

Black poplar buds are used as: medicines with antibacterial and analgesic actions; as antioxidant agents; in treatment of upper respiratory tract infections (rinse in case of laryngitis) [1, 2]. In scientific literature we can find studies of black poplar buds' hepatoprotective action; their usage as medicines for treatment of prostate gland lesion [2].

## ABSTRACTS OF POSTERS

One of the important stages of medicinal plant raw materials standardization is the establishment of qualitative and quantitative characteristics of its biologically active compounds. Black poplar buds are described in British Herbal Pharmacopoeia (BHP) as medicinal plant raw material [3], but there are no requirements to its quality in the Ukrainian State Pharmacopoeia. Taking into account the pharmacological potential of the black poplar buds, we consider important to carry out a comprehensive pharmacological and phytochemical research of black poplar raw material (buds) for experimental and theoretical substantiation of new approaches to its standardization and the creation of medicines on its base.

Phenolic compounds, including hydroxycinnamic acids and flavonoids of aglycone nature, are primary biologically active compounds of black poplar buds. We chose caffeic acid, chlorogenic acid (hydroxycinnamic acids) and quercetin (flavonols' aglycone) as marker substances (fingerprints) to further standardization of the collected plant raw material.

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## The study of the *Verbascum thapsus L.* herb element content

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Common mullein (*Verbascum thapsus L.*) is a biennial herbaceous plant of the figwort family (*Scrophulariaceae*), which is widely distributed in European countries, in particular in Ukraine [2]. The chemical composition is represented by iridoids, saponins, flavonoids, phenylethanoid glycosides (verbascoside) [3]. The common mullein leaves and flowers are used as expectorant, emollient and anti-inflammatory agents [2].

Since mineral elements take part in different metabolic processes in the body and show expressed pharmacological properties [4], we have studied the element composition of common mullein herb which was collected in the flowering phase.

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