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ABSTRACT BOOK



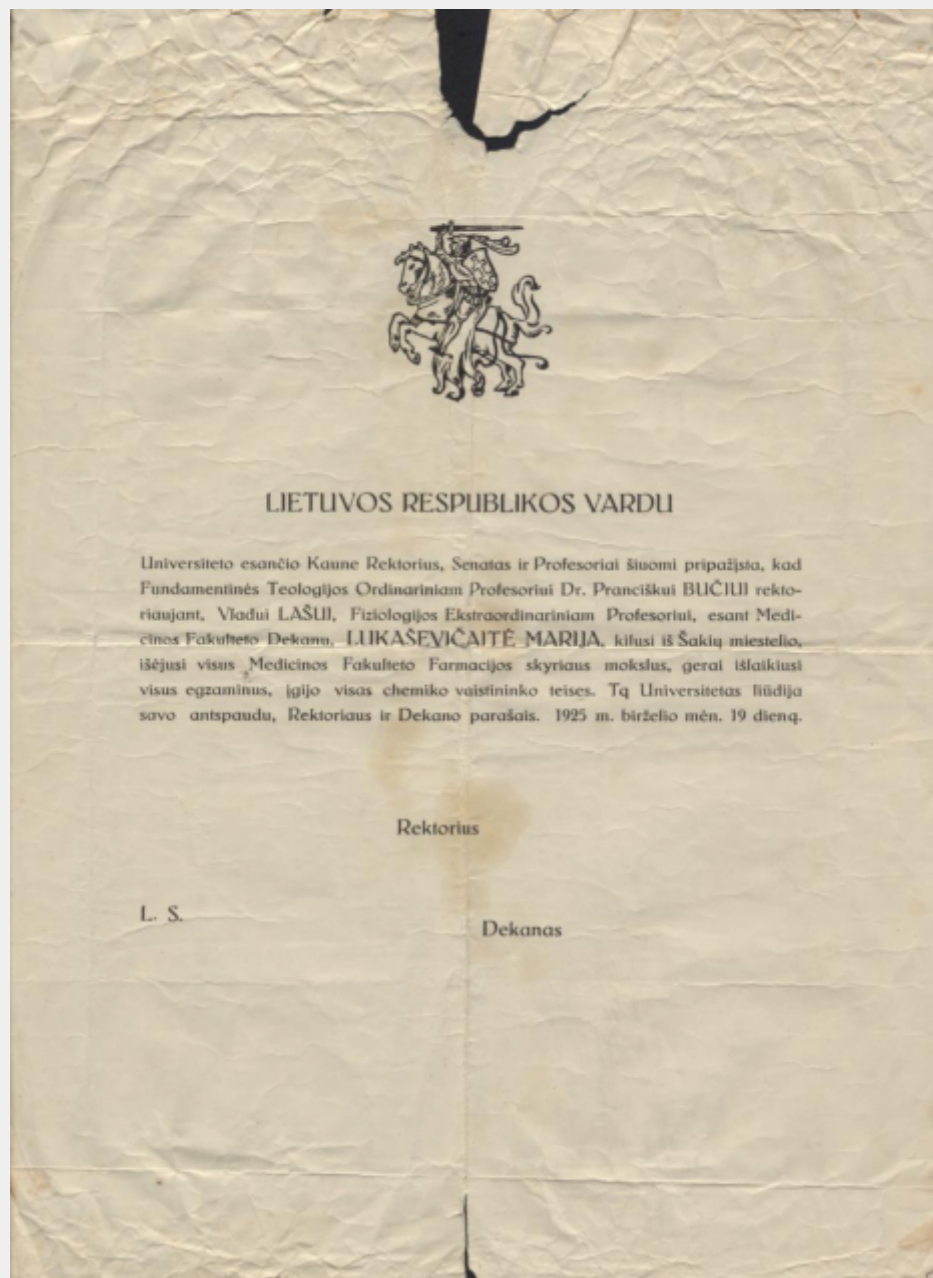
CONTEMPORARY PHARMACY: ISSUES, CHALLENGES AND EXPECTATIONS 2025

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Conference dedicated to the Centennial of the First Lithuanian Pharmacy Diploma.

One hundred years ago, the first nine graduates of the University of Lithuania completed their higher pharmacy studies and were awarded the diploma of Chemist-Pharmacist. Over the past 100 years, approximately 5,600 individuals have completed higher pharmacy studies in Kaunas. These graduates are not only the creators of Lithuanian pharmacy history but also contributors to the broader history of our country.

As we mark this centennial milestone, it is a fitting moment to look back and reflect on the remarkable journey we have taken...



Pharmacological Potential of *Lespedeza bicolor* Due to Its Chemical Composition

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Background: *Lespedeza bicolor* Turcz. is a member of the Fabaceae family and is native to eastern Asia, Korea and Japan [1]. It has been introduced into Belarus, Uzbekistan and the south-eastern United States, where it is considered an invasive species. It is also cultivated in Ukraine. At present, its use in Ukraine is limited to the treatment of inflammatory diseases of the urinary system [2]. However, it is important to consider expanding the areas of plant application due to the wide range of active phytochemical compounds.

Aim: analysis of the chemical composition and pharmacological activity of *Lespedeza bicolor* to justify further research prospects.

Methods: literature review among major databases such as Web of Science, PubMed, Scopus and ScienceDirect.

Results: *L. bicolor* has been widely used in traditional medicine to treat kidney disease, conjunctivitis, rhinitis, otitis and herpes. Current research has shown that the main groups of active substances the aerial part of the *L. bicolor* are flavonoids (quercetin, kaempferol, lespedin, trifolin, etc.), isoflavonoids (daidzein), tannins (in young leaves) and alkaloids (bufotenin, lespedamine, etc), which may have psychedelic properties. Among the range of medicines in Ukraine, there are two *L. bicolor* products: Lespenefril® and Lespefril® [3]. *Lespedeza* extracts have antioxidant, diuretic, anti-inflammatory, hypo-azotemic and antimicrobial activity due to the present of those bioactive compounds. In addition, the literature suggests that the use of *L. bicolor* extract may have anticancer and neuroprotective properties [4]. In addition, *L. bicolor* extract can suppress renal inflammation, attenuate hyperglycaemia induced liver and skeletal muscle damage in type 2 diabetes mellitus [5].

Conclusion: Thus, *Lespedeza bicolor* has a high potential for use in a wide range of areas and requires further research into its possible use in the treatment of cancer, neurodegenerative disorders, such as Parkinson's disease and to prevent complications from type 2 diabetes.

References

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