

to ensure the interests of the consumer, to discourage excessive drug use and encourage their rational use, for economic agents to ensure minimum operating conditions and stimulate competition on the basis of ethical principles of drug assistance. 2. Data protection and protection of the introduction of pharmaceutical products. Data exclusivity is a form of intellectual property protection and allows pharmaceutical companies to use only their own clinical trial data for a predetermined period, as a measure of return on initial investments which led to the discovery of an innovative pharmaceutical preparation and the stimulation of new investments in this field. However, this measure conflicts with the declared priority of the authorities of the Republic of Moldova regarding the increase of prices for pharmaceutical preparations and the reduction of the financial burden related to the costs of medicines for citizens. Therefore, this regulation will contribute to the elimination of economic agents, producers of generic drugs, from the pharmaceutical market.

Conclusions. Competitive legislative regulations of the pharmaceutical market do not always reflect the provisions of the state policy in the field of medicine.

Key words: pharmaceutical market, competition, pharmacy placement, drug authorization, regulations.

DEPARTMENT OF PHARMACOGNOSY AND PHARMACEUTICAL BOTANY

420. *ACTINIDIA KOLOMIKTA* (RUPR. ET MAXIM.) PLANT – SPECIES WITH ORNAMENTAL, ALIMENTARY AND PHARMACEUTICAL VALUE

Author: **Mihaela Bejenaru**

Scientific adviser: Tatiana Calalb, PhD, university professor, Department of Pharmacognosy and Pharmaceutical Botany, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. The genus *Actinidia* includes about 40-60 species. During the last 2 decades, the scientific community has realized a lot of scientific researches on chemical composition of different organs, especially on species *A. kolomitka*.

Materials and methods. The profile literature and databases on species *A. kolomitca* were evaluated and analyzed.

Results. Species *A. kolomitka* is a very long-lived, deciduous woody scrambling vine and creeper, which ultimately grows to 8–10 m, commonly known as variegated-leaf hardy kiwi which was mentioned as native to temperate mixed forests of the Russian Far East, Korea, Japan and China (Eastern Asiatic Region). At the beginning of XX century, this species was cultivated in England and North America as ornamental plant. Later, at the middle of century, the species began to be known as edible fruit producer, and at the end of it became the object of intense scientific researches. Scientific investigations were carried out under different aspects in different scientific centers: creation of cultivars and varieties resistant to environmental factors, cultivation technologies, chemical composition, nutritional and therapeutic value. A lot of cultivars were bred and cultivated in: Poland, Finland, Russia, Lithuania and Leetonia. This species was introduced in the collection of exotic plants of *Alexandru Ciubotaru* National Botanical Garden (Institute) in 1998 year. The world scientific researchers shown the useful chemical compounds in different organs of plant: ascorbic acid and other organic acids, pectins, tannins, sugars, vitamins P, Q, carotene in fruits; alkaloids – roots; lactones, flavonoids, saponins – leaves; and flavonoids such catechins – cork.

Conclusions. Today there are a lot of biological and chemical researches on variegated-leaf hardy kiwi. The most known chemical composition is in fruits and from aerial part of plant – leaves. The organs of species *A.kolomitka* can be in the Republic of Moldova the real new source of the raw materials for the biochemicals with nutritional and pharmacological value.

Key words: *A. kolomitka*, cultivation, chemical composition.

421. SOME SPECIES FROM GENUS *GALANTHUS* AS SOURCES OF ALKALOIDS WITH THERAPEUTIC VALUE

Author: **Carmelia Basoc**

Scientific adviser: Tatiana Calalb, PhD, university professor, Department of Pharmacognosy and Pharmaceutical Botany, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. The genus *Galanthus* includes about 20 species. Six species of g. *Galanthus* are the most analyzed in the whole scientific laboratories according alkaloids content, including species *G. nivalis*, *G. elwisii*, and *G. plicatus*, which grow in the spontaneous flora of Moldova. The *Galanthus* species require complex biological and chemical studies for rational use in medicinal purposes.

Aim of the study. To highlight the therapeutically value of alkaloids from different species of genus *Galanthus*.

Materials and methods. The bibliography and databases on *Galanthus* species according chemical composition and medicinal use were evaluated.

Results. In the spontaneous flora of Moldova there are 3 species: *G. nivalis* (with large distribution), and other 2 with limited area, introduced in the Red Book of Moldova – *G. elwesii* (Bujac steppe) and *G. plicatus* (commune Capaclia, Cantemir). In Moldova, the only chemical study on the whole plant of *G. plicatus* was carried out by professor A. Nisteanu. In the last 2 decades, the world bibliography shown, that *G. plicatus* and the other 2 species (*G. nivalis* and *G. elwesii*) were objects of chemical researches according alkaloid content. The evaluated literature demonstrated that, there are known 6 alkaloids (galanthamine, nivalidine, tazettine, lycorine, hippeastrine and narwedine) from *G. nivalis*. Also, 6 alkaloids (lycorine, tazettine, hordenine, trisferidine, narwedine, hippeastrine) were mentioned in *G. plicatus*. In *G. elwesii* were found 12 alkaloids (galanthamine, sanguinine, leucotamine, methylleucotamine, galanthine, demethylgalanthamine, (E)-N-feruloyltyramine, 9-O-demethylhomolycorine, narwedine lycorine, hordenine, and hydroxyvittatine). Intense researches elucidated, that alkaloids from *Galanthus* have many pharmacological actions: galanthamine is used in treatment of Alzheimer's Disease, which block the neurodegenerative processes; hordenine – in kidney diseases with diuretic proprieties; haemanthamine and tazettine – in cancer (leukemia and carcinoma) as inducer of apoptosis in tumor cells, lycorine – in pathogen diseases as antiviral and antifungal remedies.

Conclusions. Alkaloids are compounds with rich therapeutic uses and those from *Galanthus* offer new possibilities of efficient treating some difficult diseases.

Key words: *Galanthus*, alkaloids, therapeutic value.