

## REVIEW

of foreign scientific advisor

on thesis (PhD) work of Adekenova Aigerim Serikovna on topic “Domestic reference standards of groshemin, cynaropicrin and harmine for quality control of original medicines production” submitted for Doctor of Philosophy (PhD) degree defense on specialty 6D110400 - Pharmacy

The thesis work of Adekenova Aigerim Serikovna on topic “Domestic reference standards of groshemin, cynaropicrin and harmine for quality control of original medicines production” is devoted to the actual problem of highly effective and safe medicinal products development, achieved by the use of reference standards. The reference standards play a key role in ensuring the quality throughout the entire life-cycle of medicinal product, starting from its development and ending with the quality control of medicines on the country market.

A part of the thesis in pharmacognostic study of plant raw materials of *Chartolepis intermedia* Boiss., a source of reference standards of groshemin, cynaropicrin, and *Peganum harmala* L., a source of a standard sample of harmine, was performed by Aigerim Serikovna at the University of Szeged at the Department of Pharmacognosy (Szeged, Hungary).

During the research training Aigerim Serikovna proved herself to be a responsible and initiative specialist; the tasks assigned to her were performed on a professional level with good results. In the process of research work she has mastered the methods of anatomic-morphological, chemical and physico-chemical study of medicinal raw materials, and also mastered the skills of obtaining permanent and temporary pharmacognostic substances of medicinal plant raw materials.

Thus, in the course of her work as the candidate for the degree, Aigerim Serikovna revealed the diagnostic characters of raw materials of *Chartolepis intermedia* Boiss. and *Peganum harmala* L., which are used to determine the authenticity of these types of plant raw materials when drafting the analytical normative documents.

Good knowledge of English language helped her to adapt easily while working at the University of Szeged and get in touch with the laboratory staff and fulfill successfully the tasks at work.

The results of the work done by Adekenova Aigerim Serikovna at the University of Szeged were published in the journal recommended by the Committee for control of education and science of the Ministry of Education and Science of the Republic of Kazakhstan. The results of her thesis on topic “Domestic Standard Samples of groshemin, cynaropicrin and harmine for Quality

Control of Original Medicines Production” make a considerable contribution in the field of standardization and quality control of domestic medicines.

**Scientific advisor:**

**Professor of the Faculty of Pharmacy  
of the University of Szeged**

« 20 » 06 2016.

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