

REVIEW

of a foreign scientific consultant for PhD doctoral student Kadyrbayeva Gulnara Mukhametovna, who completed a dissertation on the topic: "Pharmacognostic study of species of the genus Allium of the flora of Kazakhstan and prospects for their use" for the degree of Doctor of Philosophy PhD in specialty 6D110400 – "Pharmacy" of the foreign scientific consultant for the applicant

Doctoral student Kadyrbaeva Gulnara Mukhametovna from 08.07.2019 to 28.07.2019 completed a planned foreign scientific internship on the topic of her dissertation: "Pharmacognostic study of species of the genus Allium flora of Kazakhstan and prospects for their use" in the Department of Pharmacognosy with a course of medicinal plants of the Medical University of Lublin, Poland. During her internship, Kadyrbaeva G.M. has proven herself to be a responsible, independent and proactive doctoral student, a competent experimenter who fully devotes herself to research.

The dissertation work of Gulnara Mukhametovna Kadyrbaeva is devoted to the pharmacognostic study of medicinal plant raw materials *Allium galanthum* and *Allium turkestanicum*, within the framework of which composite tests of the obtained extracts were carried out using HPLC-ESI-QTOF-MS/MS and GC-MS methods, biological activity was studied and antimicrobial, antioxidant and α -tyrosinase inhibitory properties were determined.

When carrying out research on the topic of her dissertation, Kadyrbayeva demonstrated high professionalism in establishing methods and approaches to solving scientific problems, in optimally setting research goals and objectives.

The research conducted by Kadyrbaeva G.M. indicates that the doctoral student has sufficient knowledge of the methods of scientific analysis, has a high level of preparedness for conducting modern scientific experiments.

The main results of the dissertation research have been sufficiently tested in the published scientific articles of the doctoral student, in the educational process and on the pharmaceutical site, which proves their theoretical and practical significance.

In connection with the above, I think that Kadyrbayeva Gulnara Mukhametovna deserves the award of the degree of Doctor of Philosophy (PhD) in the specialty 6D110400 - "Pharmacy".

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