

REVIEW
scientific foreign consultant for a doctoral student
Maratkyzy Mereke

Colorectal cancer is considered an extremely common disease: the individual risk of developing this disease reaches 5-6%. In the Republic of Kazakhstan for 2020, in the structure of oncological morbidity, breast cancer ranks first, lung cancer ranks second and colorectal cancer ranks third. The significance of neutrophil extracellular trap levels for mortality, stage, and life expectancy of cancer patients shows them as a candidate cancer biomarker to guide clinical diagnosis. Maratkyzy Mereke's dissertation research on the topic "Morphofunctional characteristics of neutrophil extracellular traps in colorectal cancer" solves these actual problems.

The dissertation of Maratkyzy M. is a completed research, performed at a high scientific and professional level. The results and conclusions formulated in the dissertation are theoretically substantiated and confirmed. The reliability of the results is not in doubt.

The dissertation of Maratkyzy M. contains new scientific results, technological, the introduction of which makes a significant contribution to the development of medical science.

The dissertation student performed a large amount of work, studied parameters in 97 patients with colorectal cancer, the applied research methods were confirmed by statistical analyses. 17 publications on the research topic were published: in the materials of international conferences - 5, in the materials of foreign conferences - 1, in scientific publications recommended by the Committee - 4 (magazine "Medicine and Ecology" - 3, Clinical Medicine of Kazakhstan - 1), publications recommended by the RSCI (International Student Scientific Bulletin) - 1, in an international scientific publication included in the Scopus database (Journal "Open Access Macedonian Journal of Medical Sciences", "International Journal of Inflammation", "Contemporary Oncology") - 3. Maratkyzy M. received 3 certificates on entering information into the state register of rights to objects protected by copyright.

As a researcher and employee, Maratkyzy Mereke is distinguished by discipline, purposefulness, hard work, independence, and responsibility, the ability to show creativity and flexibility in work.

I believe that Maratkyzy Mereke deserves the required PhD degree in the specialty: 6D110100 – "Medicine". The review is given for submission to the Ethical Commission for the Evaluation of Scientific Research

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