

INTERNATIONAL SCIENTIFIC CONSULTANT'S REVIEW

on the PhD dissertation of Alima Rinatkyzy Satanova

entitled "Analysis of the Effectiveness of Human Papillomavirus Vaccination in the Republic of Kazakhstan"

The PhD dissertation presented by Alima Rinatkyzy Satanova addresses a critically important topic in global public health – the evaluation of HPV vaccination as a strategic measure for the prevention of cervical cancer. This research is highly relevant, especially in the context of increasing efforts by the World Health Organization and partner countries to eliminate cervical cancer as a public health problem.

The dissertation is characterized by a comprehensive structure, robust scientific methodology, and a strong analytical foundation. The candidate has successfully conducted a multi-dimensional study, including epidemiological analysis over a 10-year period, clinical data assessment, and population-based surveys regarding awareness and perception of HPV vaccination. Particularly noteworthy is the inclusion of a comparative evaluation of vaccinated and unvaccinated cohorts, which strengthens the credibility of the conclusions.

The originality of this work lies in its national focus, being one of the first studies to systematically assess the real-world effectiveness of HPV vaccination in Kazakhstan. The candidate's work has revealed key insights into the prevalence of high-risk HPV types, the influence of vaccination on cytological outcomes, and significant barriers to vaccine acceptance. This evidence base is essential for guiding future immunization policies and cancer screening programs tailored to the country's population.

Throughout the study, the candidate demonstrated excellent scientific maturity, critical thinking, and a deep understanding of the epidemiology and pathogenesis of HPV-associated diseases. The findings have been presented at prestigious national and international scientific forums and published in peer-reviewed journals, including those indexed in Scopus, confirming the high scientific quality of the research.

In my opinion, this dissertation meets the international standards for doctoral research and represents a valuable contribution to the field of cancer prevention. I fully support the awarding of the PhD degree to Ms. Alima Rinatkyzy Satanova.

International Scientific Consultant

MD, PhD,

Murat Gultekin

Ankara, Türkiye

Prof. Dr. Murat GÜLTEKİN
Kadın Hastalıkları ve Doğum Uzmanı
Hacettepe Üniv. Tıp Fakültesi
Dip. Tesc. No: 104882