



Vinnova Approves AI-Based Tool for Cervical Cancer Diagnostics - Revolutionizing Early Detection and Patient Outcomes

Stockholm, June 14, 2024 — Vinnova, Sweden's Innovation Agency, via the innovations program Medtech4Health, has approved an innovative project aimed at transforming cervical cancer diagnostics. By leveraging cutting-edge machine learning techniques, this AI-based tool will enable, and support improved early detection of precancerous lesions related to cervical cancer, ultimately enhancing patient outcomes.

Gynius, Chalmers Industriteknik, and Elekta Foundation collaborate on this groundbreaking initiative. Gynius will lead the project, equip nurses and midwives with Gynocular devices, conduct training on using the device, and provide access to the software.

“The integration of artificial intelligence to provide second opinions for medical workers in the field is crucial. With support via the innovations program Medtech4Health, we can make this technology ready and validated”, says Huaqing Li, CEO at Gynius, who emphasizes the importance of innovation in women’s health:

The highest rates of cervical cancer incidence and mortality occur in low- and middle-income countries. The disease, which is caused by the HPV virus in 99 % of cases, is highly preventable if an accurate diagnosis is made at an early stage.

“Being at the forefront of women’s healthcare, we are committed to the World Health Organization’s mission of eliminating cervical cancer. Innovation and technology play a vital part in enhancing the quality of care and cost-efficiency. With Vinnova’s grant, alongside the expertise of Chalmers’ AI scientists and Gynius’ technology, we aim to transform cervical cancer screening, for a brighter future for women everywhere.”, says Lacy Hubbard President, Elekta Foundation.

The project will conduct field testing and validation in Rwanda. Diverse datasets from Swedish hospitals and Rwandan screening sessions will train the software. Rigorous validation ensures reliability and real-world effectiveness.

Chalmers Industriteknik’s dedicated group, specialized in artificial intelligence and machine learning, will oversee the development of the AI algorithms for the assessment indices used in the software.

"At Chalmers Industriteknik, we’re motivated and grateful to work on this project. This grant enable us three partners to improve women’s healthcare, especially in developing countries”, says Berenice Gudino, Moheb Nayeri, and Faruk Geles, Data Scientists at Chalmers Industriteknik.

For more information about the project, pls contact

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The Elekta Foundation's mission is to improve cancer care access in underserved countries. The work is focusing on two expertise areas: Expand Training & Education and Increase Awareness & Prevention. Since inception in 2022 comprehensive work has been initiated in Rwanda with the goal to eliminate cervical cancer and this by collaborating with government, international and local NGOs, healthcare providers and the private sector.

www.gynius.se

Gynius, a Swedish healthcare company, is dedicated to revolutionizing women's healthcare. The Gynocular, the flagship product embodies the commitment to providing an affordable, simple, and accessible solution for cervical cancer screening. With high-quality imaging and a user-friendly design, it ensures accurate diagnoses while prioritizing patient care. Gynius adapts constantly to meet the needs of both patients and healthcare providers.

www.chalmersindustrikt teknik.se

Chalmers Industrikt teknik bridges the gap between academic research and practical applications, working with both small and large companies to strengthen their competitiveness and address societal challenges. The research and development organization are an integral part of Chalmers University of Technology's innovation ecosystem and research support, driving innovation efforts and knowledge dissemination.