

Stefan Enroth - Summary

Early detection for cancer, for any kind of cancer, is the ultimate key to increase survival rates and the success in treatments for patients. For ovarian cancer, it could go undetected for a longer time and is often diagnosed at later stages. Fortunately, Associate Professor, Stefan Enroth is working on bettering samples to be cheap, non-invasive, and collected by female patients themselves.

Enroth grew up in Jakobsberg before moving to Uppsala, Sweden in 1997. He did his undergraduate studies as a civil engineer working on Information Technology Engineering at the Uppsala University for four and a half years. He spent 1 semester abroad in Lyon, France as an exchange student before working in the industry in R&D Technology. Enroth switched back to bioinformatics and received a PhD in 2010. Since then, he has been working at Uppsala University in the Department of Immunology, Genetics and Pathology with Medical Genetics as an Associate Professor in Computational Genomics.

Enroth's research project consists of an aim to develop a test based on proteins and DNA for the early detection of gynecological cancers, especially ovarian cancer in later stages. He states that it is his objective to create a sample that is "easy to collect, non-invasive, and convenient for women themselves." The process is as follows: a brush is used to collect the cervical vaginal fluid (self-collected), which is then put on a paper card, dried, then sent by post to the lab, where they analyse the samples for proteins and DNA. He goes on to say, "Ideally, you can test for multiple cancers from a single sample."

In recent years, health care has become much more individualistic. Wearable computers such as watches and a variety of apps as well are now able to keep track of daily health care. This gives much more responsibility to the person rather than them having to visit their local clinic and doctor; instead they can use self-sampling methods to collect their own samples.

Furthermore, Enroth has his own goals in mind as he continues his research. He will implement a screening test that is specific enough as to not give any unnecessary worry or false positives among women. He states that it is "important to be cost-efficient" as it is not only vital that the test is of an appropriate cost, but that it gives reliable results as well.

With the funding from the Lena Wappling Foundation, these collected samples were sent straight to analysing. They have been handed in and as of now, are currently waiting for results; “It has been a great contribution to our research.”

Of course, Stefan Enroth has not been doing this alone. On the contrary, collaboration is crucial for a project such as his to be successful. There has been partnership with clinicians and experts on the data analysis in Uppsala and Gothenburg, where they work as hands-on operating patients, collecting cervical vaginal samples from their patients and to be put on paper cards. Though collected in a clinical fashion setting, they are used in the same way as if they were self-collected. “Without collaboration, they would not be able to get so far,” he states.

Thanks to Stefan Enroth and his team, much more can be found and learned with regards to simplified detection of ovarian cancer!

Associate Professor Stefan Enroth was interviewed by Sasha Biniwale.