TCS/22/24 - Risk Stratification Of HPV In Self-Taken Vaginal Samples - A Potential Molecular Solution To Cervical Screening.

Cervical cancer (CxCa) affects >600,000 women annually. It is preceded by precancerous disease, which if caught early and treated, can be cured. More than 95% of CxCa cases are caused by human papillomavirus (HPV). In Scotland, HPV nucleic acid (NA) testing is currently the first screening approach for cervical disease. It is sensitive but not specific, so that women without disease can still test positive. Moreover, it cannot distinguish between cases of disease that will regress versus those that may progress to cancer. This means that some women will undergo additional clinical investigations to determine if they are at risk of cervical cancer. This results in considerable anxiety for patients and time and money costs for both the patient and the NHS. All of this means that new tests are required to triage those whose disease is likely to progress to cancer from those who do not need treatment. As opposed to traditional smear tests, self-sampling is a promising new approach to cervical screening that may be more acceptable to women who cannot or do not like to attend for cervical screening. We aim to test if self-taken samples can be used in NA tests and to develop a novel cellular NA biomarker panel for cervical disease that can be used as a triage test alongside viral NA testing to accurately predict regression or progression of cervical disease in self-taken samples.