

## 'Foldscope' is new affordable alternative to diagnose cancer

Umamaheswara.Rao  
@timesgroup.com

Visakhapatnam: Tribal women in the Visakhapatnam Agency area can now heave a sigh of relief as they have discovered a new cervical cancer diagnostic tool in the ultra-affordable 'foldscope' (folding microscope). Developed by an Indian-origin assistant professor at Stanford University, Dr Manu Prakash, the frugal microscope has been making waves in microorganism research and giving Indian students a peek into the mysteries of science. The Department of Biotechnology and Prakash Lab at Stanford University, USA signed an agreement to bring the Foldscope to India to encourage curiosity in science. Powered with the new tool, the researchers at Gitam University have already screened 30 women in Dumbbriguda, Hukumpeta and Ananthagiri mandals of Vizag agency area for cervical cancer. On Saturday, a one day workshop to popularise the foldable microscope has been conducted by the Department of Biotechnology at Gitam Deemed to be University.

Speaking to TOI on the si-



**BUDGET-FRIENDLY TOOL:** Workshop to popularise concept of foldable microscopes, on Saturday at Gitam University

delines of the workshop, Dr K Vijaya Rachel, principal investigator, DBT Foldscope project, said that they found some epithelial cell changes in some of the 30 women they tested for cervical cancer. "The collected pap smears were tested using the foldscope. We have set a target of conducting screening tests on 300 women in the Vizag Agency area. The ultra-affordable microscope can be used to observe both biological samples like bacteria and non-biological samples such as particulates detrimental to water and air quality," said Dr Rachel.

Dr Rachel added that the microscope will come in handy to detect the urinary tract

infections, which are common among women. "It comes with a cost-benefit to patients. Once some changes are observed in the Foldscope test, we can refer patients to further screening. The microscope can be coupled with a mobile phone through a separate lens and one can get an immediate picture of the sample," said Rachel.

Following an understanding between DBT and Prakash Lab, foldscopes have been distributed to several college students and a series of workshops were held across India. Interestingly, the DBT has twinned the investigators from the north eastern states as well as from the rest of India for the project.