

DEPARTMENT OF MICROBIOLOGY GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG



Hands on Training at Handling of Foldscope (Paper Microscope) (24.03.2022)

Brief Report: A demonstration cum Hands on Training at handling of Foldscope (Paper Microscope) was organized in the department by Mr. Manoj Sahu, (JRF-ICAR- National Institute of Biotic Stress Management, Baronda, Raipur). The training started with details of DST-SYST Foldscope Project, running for easy observation of disease symptoms during field visit and began as an idea to make science more accessible. It is an affordable microscope that would be versatile and sturdy enough to work in field conditions.

The Foldscope was developed by a team led by Manu Prakash, an assistant professor of bioengineering at the Stanford School of Medicine. Foldscope combines low-cost materials with precision optics. With a magnification of 140X, Foldscope can visualize tiny things like bacteria and microorganisms as well as larger samples like insects, plants, fabrics, and tissues. Foldscope can also attach to mobile phones for imaging, and it is very portable and waterproof. With that versatility, the possibilities are endless.

The **Assembled Individual Kit** (**AIK**) provides one assembled Foldscope paper microscope, 1 Microprint Slide, 1 Field Guide Card, 1 Phone Coupler and a portable nylon carrying pouch. A Foldscope is an optical <u>microscope</u> that can be assembled from a punched sheet of <u>cardstock</u>, a spherical glass lens, a <u>light emitting diode</u> (LED) and a diffuser panel, along with a watch battery that powers the LED. The kit also includes magnets that can be stuck onto the Foldscope to attach it to a smartphone, allowing the user to take pictures of the magnification.

Outcome: Students and faculty members understand the principle, assembly and handling foldscope. They are able to observe their own microscopic slides. Provided attachment enable them to connect with their smartphone and capture a picture for further explanation.

Faculty involved: Dr. Pragya Kulkarni, Mrs. Rekha Gupta, Mrs. Neetu Das, Ms. Anamika Sharma, Ms. Priya Sao.











