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Cardiff researchers develop 3D viewing of cancer cells

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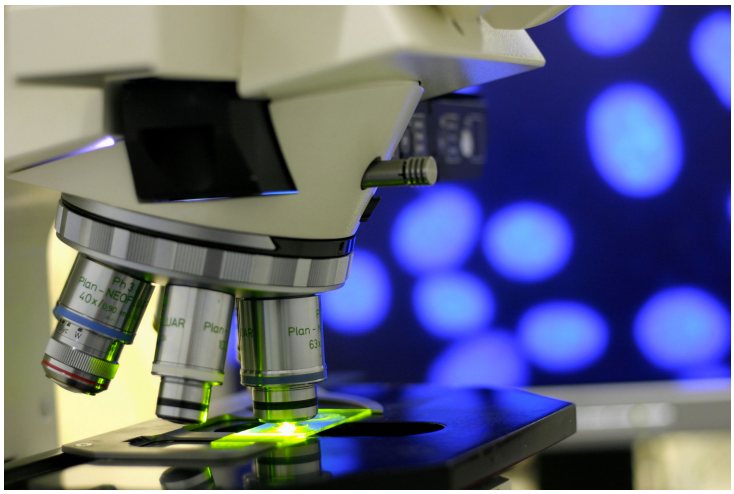

A pair of researchers at Cardiff University in the UK have developed a groundbreaking new microscope which allows them to examine cancer cells in 3D. The researchers claim the pioneering technology could lead to the discovery of new cancer treatments.

Using a technique called CARS (Coherent Anti-Stokes Raman Scattering) and laser beams the team can monitor the vibrations of molecules inside the cancer organoids to see how new treatments affect or kill them.

The new microscopic technology that allows the researchers to grow cancer cells as 3D miniature tumours called organoids, that more closely resemble a living tumour in a person and can help in better understanding different people's cancers and how drugs can be used to treat them.

The main advantage of this method is that the sample remains virtually unaffected during imaging, meaning that the same organoid can be studied multiple times over different days, and crucially both before and after drug treatment.