

Smartphone microscope could analyze DNA in the field

Scientists have built a DNA-analyzing smartphone attachment that is a fraction of the cost of lab-based kit.

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They say it could help doctors treat cancer, tuberculosis and other diseases more effectively than is sometimes possible in the developing world.

[Peer-reviewed project is [here](#).]

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One of the researchers involved said the tech could help medics examine tissue samples without having to send them to what might be a remote laboratory.

"It can use the information that is carried in our DNA to make diagnoses," said Prof. Mats Nilsson.

"In cancer, where certain mutations in tumors confer resistance to drugs, it can be used to prescribe the right treatments...And in infectious diagnostics, it's the fastest way to work out if an infection is viral or bacterial, and, if it's bacteria, to figure out if it carries antibiotic resistant genes or not."

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This prototype microscope attachment was developed as a joint effort by the University of California, Stockholm University and Uppsala University. The creators believe it can be massed produced for less than \$500.

"Nanopore-based electronic devices, including those attached to mobile phones such as SmidgION, allow anybody to sequence anything, anywhere," the company's chief technology officer Clive Brown told the BBC.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [DNA-testing smartphone aims to tackle drugs resistance](#)