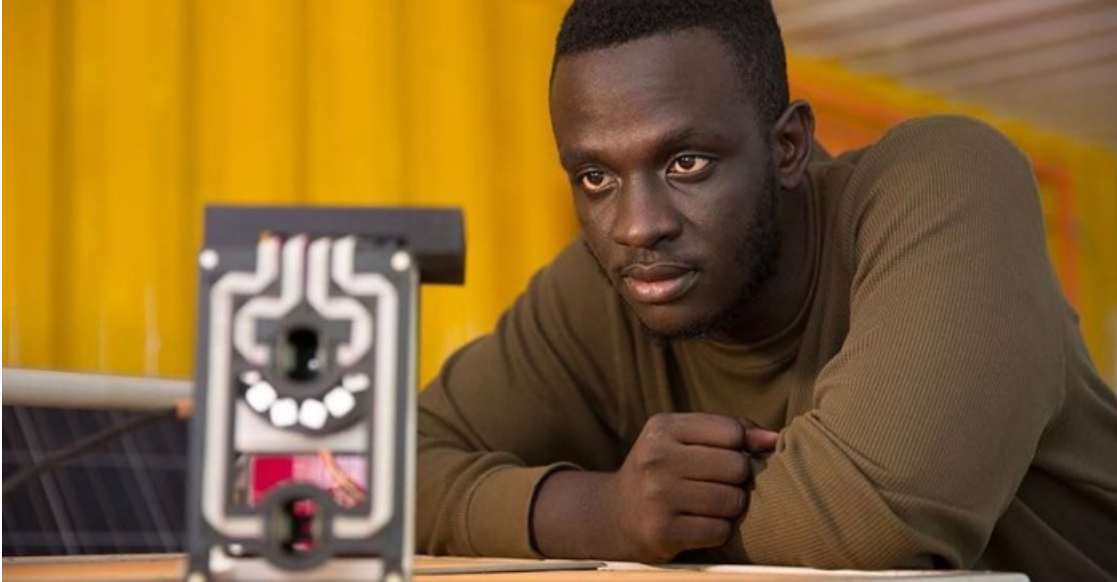


Malaria testing device wins top prize for young Ugandan

When no less than three blood tests failed to diagnose his malaria, Brian Gitta decided to come up with a better option. He developed a device that tests for malaria without drawing blood, which won him the prestigious Royal Academy of Engineering Africa prize.



Brian Gitta with his Matibabu malaria testing device

Gitta and his team developed Matibabu, a device which tests for malaria without drawing blood. Matibabu, which means ‘medical centre’ in Swahili, is a low-cost, reusable device that clips onto a patient’s finger, requiring no specialist expertise to operate. The results are available within one minute on a mobile phone that is linked to the device.

A red beam of light shone through the user’s finger detects changes in the shape, colour and concentration of red blood cells, all of which are affected by malaria.

Accuracy

So far, trials show that Matibabu has around 80% accuracy when it comes to accurately diagnosing malaria. But Gitta and his team have been refining the technology which underpins it, and are confident that new clinical trials will demonstrate 90%-plus accuracy — on a par with microscopic examinations, the current gold standard when it comes to malaria testing.

Matibabu is currently undergoing testing in partnership with a national hospital in Uganda, and is sourcing suppliers for the

sensitive magnetic and laser components required to scale up production.

The device is aimed at individuals, health centres and diagnostic suppliers. The team also aims to set up the device on the streets to allow people to do a single test at a time.

First prize

Gitta wins the first prize of £25,000 (124 million Ugandan shillings). At an awards ceremony in Nairobi, Kenya on 13 June 2018, four finalists from across sub-Saharan Africa delivered presentations, before Africa Prize judges and a live audience voted for the most promising engineering innovation.

The Africa Prize for Engineering Innovation, founded by the Royal Academy of Engineering in the UK, is Africa's biggest prize dedicated to engineering innovation. It encourages talented sub-Saharan African engineers, from all disciplines, to develop innovations that address crucial problems in their communities in a new, appropriate way.

Through their participation in the Africa Prize, the Matibabu team have been approached by international researchers offering support and are currently writing up their ground-breaking findings into an academic paper, to be published within the next few months.

The 24-year-old is the first Ugandan to win the prestigious Africa Prize, and the youngest winner to date.

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