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ASIA EDITION

Singapore develops malaria test kit that delivers results in 30 mins

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A team of scientists from Nanyang Technological University, Singapore (NTU Singapore) has developed a test kit for malaria that delivers results in 30 minutes.

The kit works by detecting hemozoin, a by-product formed from the digestion of blood by malaria parasites, which is a unique indicator of the disease.

The kit could facilitate the diagnosis of malaria in the field, as the equipment needed is anticipated to be lightweight, easy-to-use, and able to detect the disease in its early stages.

Efforts to treat and control malaria in developing countries and rural areas are hindered by high cost and the lack of infrastructure. Rapid diagnostic tests (RDTs) for malaria are unable to detect infections during the early stages of the disease, but can give false positive or negative results. They also do not determine the severity of the infection.

The researchers estimate that each test would cost roughly $1 per chip to manufacture and at this price would facilitate low-cost point-of-care field testing on a large scale.

The team hope to find an industry partner to work with and to conduct further trials on their malaria test kit to improve its sensitivity and functionality.