Exeter Engineers in race to develop malaria detector

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University of Exeter engineers are leading a Europe wide partnership worth almost one million pounds to develop the world's first non-invasive detector for malaria.

Malaria kills at least one million people every year, the majority children. Currently the disease is only reliably diagnosed by examining blood samples under a microscope, which requires both time and expert attention. Now researchers from the School of Engineering, Computer Science and Maths intend to create an instrument that will automatically show the level of parasitic infection.

Most excitingly they hope to produce a hand held device, able to detect the presence of the parasite by taking measurements through the skin, removing the need for blood sampling altogether.

Dr Dave Newman, from the Department of Engineering, said: "The vast majority of deaths from malaria occur in sub-Saharan Africa where access to basic diagnostic facilities is often extremely restricted. Coupled with the prevalence of HIV there is an urgent need for a device that can accurately detect the presence of the parasite without drawing blood or requiring the skills and technology associated with the traditional method. If we can create such a device those infected with malaria can receive the correct treatment quicker, which will save lives.

Working with our colleagues from the Universities of Coventry and Uppsala, the Royal Tropical Institute in Amsterdam and the companies

Philips Medical Systems, Metis Instruments and Eurorad we hope to use ideas from many scientific disciplines to address a real medical need."

Source: Exeter University