SMART-BioSyM Research on Improving Malaria Diagnostics Accepted for Publication in *Scientific Reports*

30th June 2015: A recent study by a team of researchers consisting of the BioSystems and Micromechanics Interdisciplinary Research Group of the Singapore-MIT Alliance of for Research and Technology (SMART-BioSyM), MIT in Boston, Nanyang Technological University in Singapore and Griffith University in Australia have developed an improved approach in malaria diagnostics. This work was published in the Open-Access journal *Scientific Reports* (as part of the Nature Publishing Group). SMART-BioSyM recent PhD graduate Mr Kong Tian Fook was the lead author, who was supervised by A/Prof Marcos (NTU), Prof Nam-Trung Nguyen (Griffith University) and Prof Jongyoon Han (MIT-Boston and SMART-BioSyM).

In malaria, defining the baseline for indicating low-level parasite infection is a key hurdle for developing diagnostics development. With that in mind, Mr Kong and colleagues have used microfluidics (manipulating small volumes of liquids) to separate infected red blood cells from their healthy counterparts. This has allowed the magnetic resonance relaxometry (observing the spinning of particles exposed to magnetic fields) to detect malaria parasites with greater sensitivity, which has opened up a new possibility of applying this technology to complement malaria diagnostics in the future.

Click here to access the published manuscript on *Scientific Reports*. To know more about the technological capabilities of SMART, please visit the CREATE website for more information.

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