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NUS, Fujitsu leverage use of 'cloud' in healthcare

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National University of Singapore, Fujitsu to develop body sensor network using health cloud

Singapore: Fujitsu Laboratories, Europe; Fujitsu Asia and National University of Singapore (NUS), have inked a collaboration to establish a new joint research programme for body sensor network for disease management and prevention-oriented healthcare. Fujitsu will be working closely with the department of electrical and computer engineering at the NUS faculty of engineering, as well as the NUS Yong Loo Lin school of medicine and the NUS Saw Swee Hock school of public health.

The initial objectives of the programme will be to develop a wireless body sensor network, designed for continuous patient monitoring, both in hospital and at home, and connected to a 'health cloud' for remote processing by computers and healthcare providers.

The wireless biomedical sensors form a wireless body sensor network around the body, will enable patients' vital signs to be collected and transmitted in a context-sensitive manner. The recorded physiological data are stored and processed in the

cloud and, in the case of any abnormalities being detected, creates flags to alert healthcare providers.

Dr Adel Rouz, executive VP, Fujitsu Laboratories, Europe, said that, "Our joint vision is to provide innovative solutions that facilitate prevention-oriented, personalised, patientcentric and data-centric healthcare for in-patient and homecare applications. By enabling medical staff to monitor their patients more effectively and cost-efficiently, we are aiming to help improve patient recovery and throughput as a result of better monitoring, as well as enabling a reduction in staffing overheads. We are delighted to be working in partnership with the NUS on this exciting and groundbreaking project."

Among the programme's specific objectives are the further development of a wireless sensor plaster for ECG, temperature, and respiration monitoring, as well as wireless wristband sensors for taking patients' blood pressure, temperature and oxygen saturation readings. A range of medical team applications, designed for use by doctors and nurses, will be tested during pre-clinical trials in a training ward, followed by full clinical trials in a mainstream ward at the National University Hospital. In addition, the programme will conduct home trials with a number of volunteer patients, with the aim of creating a new generation of user-focused applications for the homecare sector.