

Tissue bank launched for colorectal cancer research

19 July 2012 | News | By BioSpectrum Bureau

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Singapore: The Fortis-IBN TissueBank (FIT) for research and development in colorectal diseases will help accelerate translational research in colorectal cancer.

FIT is the result of a S\$4.5 million investment from a partnership between the Institute of Bioengineering and Nanotechnology (IBN), the world's first bioengineering and nanotechnology research institute, and Fortis Colorectal Hospital (FCH), Southeast Asia's first hospital dedicated to the full spectrum of colorectal disease management.

Prof Jackie Y Ying, executive director of IBN, said, "This partnership is an exciting collaboration between medical doctors and researchers from the private and public sectors. Both IBN and Fortis have a strong track record of bringing advances from research and innovation to clinical practice and industry. We are now working together to develop and deliver novel technologies for colorectal cancer patients. This new initiative will contribute to the biomedical enterprise in Singapore and help us make a difference to healthcare providers."

Dr Jeremy Lim, CEO of FCH, said, "Fortis Colorectal Hospital's collaboration with IBN is one of the many steps we are making towards contributing to the larger healthcare community in Singapore and the region, and is part of our strategy to create value. We hope that bringing doctors and researchers together will enable us to develop innovative treatments for patients with colorectal diseases. This partnership represents our commitment to not only being a leading hospital for colorectal care, but also a hospital focused on creating and sharing new knowledge to benefit many more patients beyond

our doors."

Located at IBN, the biobank will store and maintain patient samples from FCH such as tissue, blood and bodily fluids for research on various aspects of colorectal cancer. Chaired by Dr Tan Min-Han (Team Leader and Principal Research Scientist, IBN; Visiting Consultant, Medical Oncology and Cancer Genetics, National Cancer Centre Singapore) and Dr Koh Poh Koon (Adjunct Clinician Scientist, IBN; Senior Consultant and Director, Colorectal Surgical Oncology & Cancer Genetics Service, FCH), FIT will focus on expanding the epidemiology of colorectal cancer in Singapore and Asia to develop new approaches that can improve diagnosis, treatment and personalized therapy.

Colorectal cancer affects the colon or rectum, and is the most common cancer in men and the second most common cancer in women, after breast cancer, in Singapore. The risk of getting colorectal cancer increases with age, and is more prevalent in people aged 50 years or older. To date, a colonoscopy remains the primary test for doctors to screen patients for colorectal cancer, and patients over 50 years are advised to go for a colonoscopy once every ten years. Unfortunately, the misconceptions of pain and discomfort surrounding the procedure have made it one that many patients would rather avoid unless prescribed by their doctor.

"This research and development collaboration gives us the opportunity to explore the frontiers of science and medicine, and discover alternative ways to detect and treat colorectal cancer. I hope that the results we achieve will give new hope to future cancer patients," said Dr Koh Poh Koon.

"The Fortis-IBN TissueBank will allow us to investigate colorectal cancer in a well-integrated clinical and laboratory environment, to improve diagnostics, surgery and chemotherapy for this dreaded disease. We hope that this combination will enable us to advance diagnostics and management for Asian colorectal cancer patients," said Dr Tan Min-Han.

IBN and FCH will work on the development of non-invasive technologies to offer a viable alternative to conventional biopsy. The research areas of interest are cancer biomarkers, advanced diagnostics such as circulating tumor cells, nanoparticle and exosome-based diagnostics, as well as colorectal cancer metabolism. The research projects will impact and improve the diagnosis and treatment of colorectal cancer.

With the rapidly rising numbers of colorectal cancer in Asia, IBN and FCH will also focus on individualized therapy for Asian colorectal cancer patients. With such distinct genetic and disease profiles of patients here in Asia, this collaboration aims to deliver the best available care and research to colorectal cancer patients.