




CURRENT POSTGRADUATE STUDENT

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PROGRAM	PhD in Surgery	
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FIELD OF RESEARCH / INTENDED THESIS TITLE	Functional anorectal studies in patients with low anterior resection syndrome (LARS)	
KEYWORDS FOR RESEARCH	Anterior resection syndrome, LARS, Fecobionics, bowel dysfunction, defecation.	
RESEARCH STUDY:		
<p>Colorectal Cancer is the commonest cancer diagnosed in Hong Kong. In 2015, 16.6% of all new cancer cases registered on the Hong Kong registry were cancer of colon and rectum, and up to 38% of cancers being found in the rectum. Depends on patient's condition, there are different treatment options. Many patients are now receiving sphincter-preserving surgery with low colorectal or coloanal anastomosis to avoid permanent colostomy. However, up to 80% of patients who has undergone low anterior resection (LAR) surgery suffer from severe bowel dysfunction postoperatively. Patients symptoms typically fall into two categories: those with incontinence, frequency, and urgency, and those with constipation and feelings of incomplete emptying. Moreover, some patients report features of both, either occurring simultaneously or fluctuating between these two groups of symptoms. This combination of symptoms after LAR surgery is referred to as Low Anterior Resection Syndrome (LARS) which is associated with negative impact on quality of life (QoL).</p> <p>Originally, it was thought that these symptoms were short-lived irritability in the postoperative period. However, many studies report that the majority (up to 90%) of patients experience long-term changes in quality of life after LAR surgery. Therefore, a large number of patients worldwide are suffering from unpredictable, poor bowel function postoperatively affecting their day-to-day activity and quality of life. Unfortunately, there is no cure for LARS at present and the cause of LARS is thought to be multifactorial and difficult to define. Moreover, Physiological evacuation phenomena of the anal sphincter during defecation cannot be described in detail with current technology.</p> <p>This study is designed to use Fecobionics, a new Hong Kong based innovation, to provide new mechanistic insights regarding anorectal physiological function post low anterior resection. This will help us to understand the condition better and hopefully to improve their treatment options.</p>		



CONFERENCE TITLE / ABSTRACT / POSTER:

1. Liao, D., **Chen, S. C.**, Lo, K. M., Zhao, J., Futaba, K., and Gregersen, H. "Theoretical Tools to Analyze Anorectal Mechanophysiological Data Generated by the Fecobionics Device." *ASME. J Biomech Eng.* September 2019; 141(9): 094501. doi: <https://doi.org/10.1115/1.4044134>