



Barry P McMahon

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Biography

Barry P McMahon is Chief of Medical Physics and Clinical Engineering at Tallaght University Hospital and Associate Professor of Medical Physics and Bioengineering in the School of Medicine, Trinity College Dublin. He holds an MSc degree in Physical Sciences in Medicine from Trinity College Dublin and a PhD degree in Biomedical Sciences from Aalborg University in Denmark. He is a Co-Director of the Trinity Academic Gastroenterology Group (TAGG) a research centre at Trinity College Dublin. In 2010, he received a research award in recognition for his research into digestive valve measurement. In 2016, he was awarded a distinguished visiting scholarship at the School of Medicine, Chinese University of Hong Kong for his work on medical device innovation. He has published more than 50 research papers.

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THE ROLE OF FUNCTIONAL VALVE MEASUREMENT IN DIAGNOSIS AND TREATMENT IN THE GASTROINTESTINAL TRACT - CHANGING THE PARADIGM

Valvular regions in the gastrointestinal tract provide an important role in the flow and reflux of solid, liquid and gas materials ingested and generated in the intestine. For more than five decades, the gold standard for assessing the function of these junctions was thought to be manometry, but in recent years this has shown not to be the case. Professor McMahon and his team have demonstrated that instead of looking at how much squeeze or tightness involved in valve closure it may be better to look at the amount of opening. During this research, working with collaborators, he used the principle of impedance planimetry to invent the functional lumen imaging probe (FLIP) which was subsequently commercialised as the product EndoFLIP®. During this address Professor McMahon will review the developing applications in diagnosis and treatment of gastrointestinal valves for a series of common disease states in the gastrointestinal tract. The ongoing success and usefulness of this technology has been verified by the sale of the technology to Medtronic last year. The talk will set up to provide a basis for understanding the technique and its developing applications in areas such as reflux disease, achalasia, faecal incontinence and swallowing disorders related to upper oesophageal sphincter function.



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