# **Coloproctology minisymposium UMCG /**

# **Tuesday 4th September 2018** Rondezaal UMCG, Hanzeplein 1, Groningen



18.00 - 19.00	Buffet	
19.00 - 19.10	Opening	Christiaan Hoff
19.10 - 19.35	The anal-external sphincter continence reflex	Maxime van Meegdenburg
19.35 – 20.00	Mechanisms of continence, and overdoing it in constipation,	
	as revealed by high-resolution colonic manometry	Jan Huizinga
20.00 - 20.25	Human colonic motor patterns and their myogenic and neurogenic origins,	
	measured using 84-sensor high-resolution manometry	Jihong Chen
20.25 - 20.40	Break	
20.40 - 21.05	Human studies of anorectal sensory dysfunction	Charles Knowles
21.05 - 21.30	Anorectal physiology testing for constipation/incontinence	Paul Broens
21.30 - 22.00	Drinks	

# **Presenters:**

## Maxime van Meegdenburg, MD

Maxime van Meegdenburg started in 2010 to study Medicine. In addition, she has been following the MD-PhD track at the Anorectal Physiology Laboratory Groningen since 2014 as member of the scientific anorectal physiology laboratory group headed by Dr Broens. Maxime performed research on various aspects of faecal incontinence, particularly the physiology and pathophysiology of faecal incontinence. She investigated, for instance, the innervation of the anal-external sphincter continence reflex (AESCR) and how this reflex functions in healthy people and in patients. Furthermore, she carried out a study on the prevalence, risk factors, and symptoms of faecal incontinence in the Dutch society. Improving the diagnostics of faecal incontinence was a part of her research as well. On September the 5<sup>th</sup> she will defend her thesis at the university of Groningen.

## Jan D. Huizinga, MSc PhD

Prof. Huizinga was born and raised in the village of Leens, in the province of Groningen. He was (hard to believe) the first student of his small primary school who went to high school in the big city of Groningen. Thereafter he studied biochemistry at the University of Groningen and continued to earn a PhD degree in pharmacology with a focus on intestinal motility. Thereafter he did a post-doctoral fellowship at the university of Toronto in Canada followed by a faculty appointment at McMaster University. His research focus has been the elucidation of the nature and functions of the gut pacemaker cells, the interstitial cells of Cajal (ICCs). He received several awards for this work including the 3rd International Janssen Award in Neurogastroenterology and Motility; His first Nature paper on ICC is the most cited in this field. This was followed by two other Nature papers leading to our understanding that interaction of two ICC networks leads to the intestinal segmentation motor pattern. Huizinga and Chen have now created a clinical and basic science project at McMaster focused on translational gastrointestinal motility, to discover biomarkers for various colon dysfunctions using highresolution colonic manometry.



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#### Jihong Chen, MD PhD

Jihong Chen received her all medical training in China, including a Master's degree and a PhD degree. She was recruited as a faculty member at Renmin Hospital of Wuhan University after her graduation from medical school in 1991. She has been working on GI motility as her career ever since. She set up a basic GI motility lab and also a clinical motility laboratory of which she was the director for 11 years. Her passion is to understand gastrointestinal physiology and pathophysiology to better help her patients. In 2013 she joined McMaster as a clinical fellow and set up High Resolution Colonic Manometry together with Prof. Huizinga. She is now the supervisor of the clinical motility laboratory at McMaster and lead clinical investigator in High Resolution Colonic Manometry studies in children and adults with severe colon dysfunction. She will soon accept a faculty position at McMaster and start an exciting study into treatment of neuronal dysfunction of communication pathways between the colorectum and the sacral autonomic nervous system using low level laser therapy.

#### **Charles Knowles, MD PhD**

Prof. Knowles undertook his preclinical training at Cambridge University and then moved to the London Hospital Medical College, qualifying in 1992. Prior to specialist training, he undertook research based at Barts & the London and, funded by the Royal College of Surgeons of England, leading to the degree of PhD at the University of London in 2000. He entered the Specialist Register in 2005 as a general and colorectal surgeon. In 2006, he was appointed Senior Lecturer in Colorectal Surgery on the basis of a prestigious award from HEFCE. He holds an Honorary Consultant appointment at Barts Health NHS Trust.

Professor Knowles is Director of the NIHR Enteric Healthcare Technology Cooperative, Director of the National Bowel Research Centre and Surgical Specialty Lead for North Thames NIHR CRN. He holds research positions in the European Society of Coloproctology and Association of Coloproctology of Great Britain and Ireland. He is Chair to UEG-led international working groups in anorectal physiology and GI neuromuscular diseases. He serves as a member of the Rome IV committee for anorectal disorders and is on the global expert panel for Medtronic. He is a panel member for NIHR i4i and is on the editorial board of two journals. He has authored over 150 peer-reviewed publications as well as contributing several book chapters to major colorectal and general surgical texts.

#### Paul Broens, MD PhD

Paul Broens studied medicine at the Catholic University Nijmegen, graduating in 1991. He trained to be a surgeon at the University of Leuven (Belgium), completing his studies there in 2002. He further specialized to become a paediatric surgeon at the UMCG and the Hannover Medical School (Germany). In 2005 he joined the paediatric surgery staff at the UMCG, becoming head of the department in 2017. While still a student, he developed interest in anorectal physiology during his internship at the University of Pécs medical school (Hungary). The ideas he developed in Pécs constituted the basis for the research he conducted for his PhD in Leuven. He defended his thesis, titled 'Anorectal Sensibility', in 2003, and has been involved in research related to the treatment of faecal incontinence and constipation ever since. In 2010 he founded the Anorectal Physiology Laboratory Groningen at the UMCG. At the APLG, researchers and corporate partners develop new techniques for the optimal registration of anorectal physiological findings. The Anorectal physiology laboratory consists at the moment of 15 members of which 8 are PhD-students. As the director of the APLG, Dr Broens supervises all measurements, as well as the scientific research.

Accreditation has been requested

To be able to organise the catering you are kindly asked to send an email to afcg-onderzoek@umcg.nl, mentioning with how many people you are planning to attend this meeting.

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This meeting has been supported by

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