

# Meeting Prof. Jan Tack

## One of the leading researchers and clinicians in the field of gastroenterology

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**As a clinician and researcher dedicated to gastroenterology I had recently the opportunity to spend some months as a visiting fellow in the Catholic University of Leuven. This is one of the eldest institutions in Europe and is a research-intensive, internationally oriented university that carries out both fundamental and applied research.**

During my stay I had the great honour to meet and gather some experience from Prof. Jan Tack, who is, since many years, the voice of the European Gastroenterology in many respects. Prof. Tack graduated at the Faculty of Medicine of K.U. Leuven with maxima cum laudae and congratulations from the jury. He performed his specialist training as internist and gastroenterologist in the University Hospitals of the country. His interest for gastrointestinal motility has a long history. Besides the research conducted in the GI motility lab of the mother university, Prof. Tack participated also in the same activity as research fellow at the Department of Physiology of the Ohio State University.

Prof. Tack obtained his PhD degree in 1992 with a thesis on „The physiology of the enteric nervous system in the gastric antrum of the guinea-pig.” In 1995 he became staff member in the Department of Internal Medicine, and after some months, associate professor at the faculty of medicine. In 1997 he was appointed researcher of the National Fund for Scientific Research. Since 2001, Jan Tack is Professor at the Faculty of Medicine and, since 2005, head of Department of Internal – Clinical and Experimental Medicine. He participates in the activity of- and is also principal researcher of the Translational Research in Gastrointestinal Disorders Unit (T.A.R.G.I.D).

The present scientific interest of Professor Tack focuses on neurogastroenterology and motility including hot topics such as the pathophysiology, the management and prevention of gastrointestinal functional and motor disorders (reflux disease, functional dyspepsia, dumping syndrome, gastroparesis, chronic constipation and irritable bowel syndrome). He is also involved in the pharmacophysiology of the human and animal enteric nervous system, gastrointestinal hormones and the control of hunger, satiation and food intake. He has published more than 480 articles and 40 book chapters on various aspects of the gastrointestinal diseases.

Professor Tack has won several awards for basic and clinical research in gastrointestinal science. He is currently a board member of the Rome Foundation, of the EAGEN – European Association for Gastroenterology, Endoscopy and Nutrition, and a member of the Steering Committee of European Society for Neurogastroenterology and Motility.

Professor Tack is Editor-in-Chief of the United European Gastroenterology Journal, Past-President of the European Society of Esophagology and Past-President of the International Society for Diseases of the Esophagus and has served as (co-)editor for Neurogastroenterology and Motility, Gastroenterology, Gut and Digestion. He serves or has served as a member of the Editorial Board of Gastroenterology, the American Journal of Gastroenterology, Alimentary Pharmacology and Therapeutics, the Journal of Internal Medicine, Baillière's Best Practice and Research in Clinical Gastroenterology, Annals of Gastroenterology and the Journal of Gastroenterology.

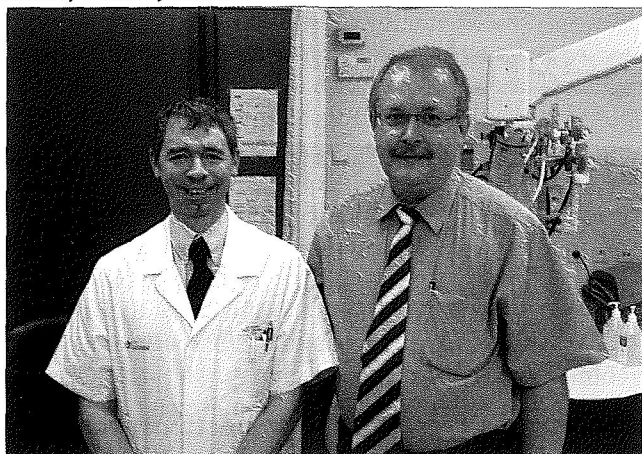
Prof. Tack is well aware about the gastroenterological research and patient care done in Hungary and is open to a strengthening of the basic and clinical research collaboration between both countries, Universities and Gastroenterological Societies.

Prof. Tack sends his warm congratulations and offers full support for the newborn “Central European Journal of Gastroenterology and Hepatology” not only as a leading researcher but also as the Editor in Chief of the UEG Journal.

*Why did you choose Gastroenterology among other specialties from Internal medicine?*

This choice was driven on the one hand by a personal clinical interest in Gastroenterology, which is broad specialty with a wide range of pathologies, involving patients

**Figure 1: Jan Tack M.D., Prof. and Zoltán Csiki M.D., Ph.D., M.Sc.**



of all age groups, and with the ability to perform technical acts at endoscopy. There was also a specific research interest that played a role. As a student, I was student-researcher in the labs of neurophysiology and neurosurgery. The head of internal medicine and of gastroenterology at that time, Prof. G. Vantrappen, heard of that interest and proposed me to start studying the enteric nervous system in the G.I. tract. I liked the proposal, began to get involved in GI research and happily continued to do so since then.

***Would you be so kind to disclose some of the most important steps of your medical career?***

One element that started off my scientific involvement was high grades as a student; this opened some doors for me to be a student-researcher. The same aspect also allowed me to do part of the sixth year-clinical training abroad (Hammersmith Hospital). From then on I was determined to be actively involved in clinical and translational research, preferably with an international dimension. I started internal medicine specialisation in 1987 under the supervision of Prof. Gaston Vantrappen and the Belgian system allows to combine this with a PhD track, which extends the training period by 2 years only. For my PhD, I went to the U.S., to study electrophysiology of the enteric nervous system with Prof. Jack Wood at the Dept. of Physiology, Ohio State University. I finished my PhD and specialisation training in 1994 with Prof. Jeff Janssens as supervisor, and in the same year I became a staff member in the University Hospital in the Gastroenterology unit and was appointed Associate Professor at the University. I was successful in obtaining funding from the National Fund for Scientific Research from 1996 onwards, and with some luck this generated a number of publications which have been a basis for the growth of my group. I got early promotion to full professor, and became head of the Department of Clinical and Experimental Medicine. The next milestone was obtaining long-term stable funding from 2009 onwards. This allowed further expansion of the group and gave a solid basis to explore new research areas. Internationally, acting as an associate editor of *Gut* and later as editor-in-chief for *Neurogastroenterology and Motility* and for the *United European Gastroentero-*

*logy Journal* were important learning processes. I was also elected as a board member in the European Association for Gastroenterology, Endoscopy and Nutrition (EAGEN), was president of both the European and the International Society for Diseases of the Esophagus (ESDE and ISDE) and a board member of the Rome Foundation. Involvement in the activities of these societies in postgraduate teaching and their mission of advancing specific disease areas have been extremely enriching and rewarding.

***What do you consider as the most significant achievements in Gastroenterology at the University of Leuven?***

The institution has a long-standing tradition in GI clinical and basic research, in many areas. Some of the highlights include the development of pneumatic dilation for the treatment of achalasia (1960's, Vantrappen), description of the MMC and its role in preventing bacterial overgrowth in man (Vantrappen, 1970s), identification of the gastroprokinetic activity of erythromycin through the motilin receptor (1980's, Janssen and Peeters), development of the gastric emptying breath test (1990's, Ghoos), studies of the application of biologicals in IBD (2000s, Rutgeerts), just to give some examples, but there are many more!

***What is T.A.R.G.I.D for you?***

It is the name of my research lab, the TrAnslational Research center for GastroIntestinal Disorders. At present it consist of more than 100 full-time researchers dedicated to gastrointestinal research in many aspects (digestion and absorption, motility and sensitivity, enteric nervous system, gut peptides, neuro-immune interactions, inflammatory bowel disease, gut-brain signalling, control of food intake and mucosal integrity research). For a flavor, you can visit the website [www.targid.eu](http://www.targid.eu).

***What are your concerns about Functional Digestive Diseases (GERD/NERD, FD, IBS) to-day?***

These conditions are highly prevalent and have an important impact both on quality of life and on healthcare expenditures. They have suffered from under-recognition for a long time, partially based on the stigma that they were merely psychosomatic conditions, which diminished the interest of gastroenterologists and the willingness of regulatory bodies to pay and of the drug industry to develop drugs.

***How do you see the future for these diseases?***

Although slow, progress has been made. The psychosomatic notion is largely abandoned, and the focus is now on peripheral mechanisms (motility, food, gut flora), but taking into account central modulatory events. New pharmacotherapy and other therapies with demonstrable benefit in subsets of patients (e.g. the FODMAP diet) are emerging or entering clinical practice. Scientifically the future looks bright. Willingness of regulatory bodies and healthcare systems to pay remains problematic, and there we need to organise the proper outcomes studies with the appropriate treatments.

***How do you explain so many applicants for PhD coming from all over the world in your R&D department?***

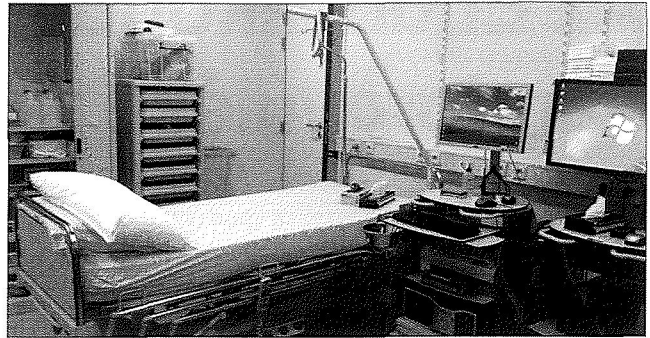
Probably has to do with the fame of the institution, as indicated under question 3 on one hand, but also with the scope of the research that is now ongoing in the centre, as outlined under question 4, and the open international spirit at TARGID. Most important however, is our attitude towards PhD fellows, who are allowed to be the prime beneficiaries of their hard work in terms of presentation at meetings and authorship of manuscripts. We are also committed to going all the way when we accept a PhD student: over the last 10 years more than 25 PhD fellows were supervised by me without any drop-out.

***Do you think that there is a room of improvement regarding the collaboration between Eastern- and Western-Europe in the field of Gastroenterology?***

There is definitely room for cross-talk, exchange of experience, concepts and ideas. Access to healthcare, disease prevalence and management approaches are often different, and we should learn from each-others successes and determine the best common approach. Exchanges of trainees and gastroenterologist for short observation periods would be one great way to achieve this.

***In that case how do you consider the role of the University of Leuven and the Hungarian universities?***

These institutions could certainly take a lead in clinical exchange programs, as outlined above.

**Figure 2: Research laboratory of Prof. Tack*****In the same context what can be the role of an Eastern-European Journal?***

First of all there is clearly room for a journal dedicated to Gastroenterology and Hepatology with roots in Eastern-Europe in terms of editors, publishers and readership base. However, if this journal has ambition to improve the collaboration between Eastern- and Western-Europe in the field of Gastroenterology, there is a need for a mixed authorship and readership, throughout Europe, from East to West. An initial step to achieve this is an editorial board which includes Eastern- and Western-Europeans, and invited contributions from leading experts from both Eastern and Western Europe. There is a possibility for specific journal content that focuses on interactions between East and West, e.g. in articles that compare clinical practice approaches and treatment algorithms across countries.