Scientific Group : **GIREM**
Day: **February 13th, 2025**

Session 1
Moderators: Werend Boesmans (Hasselt University), Nathalie Stakenborg (KU Leuven)

9:00 Invited Lecture: **Enteric neural communication in colorectal carcinogenesis: shaping immune responses.**
Veerle Melotte (Maastricht University Medical Center)

9:45 11 B 01 **Demonstrating the neurogenic capacity of adult enteric glia cells and assessing their post-transplantational functionality using calcium imaging and electrophysiology in Ednrb-/- mice in the context of Hirschsprung disease.**
K. VAN MECHELEN (1), J. ZHAO (1), H. YU (1), M. DI NATALE (1), J. FURNESS (1), M. HAO (1), L. STAMP (1) / [1] University of Melbourne, Parkville, Australia, Anatomy and Physiology

10:00 97 B 02 **Exploring Molecular Drivers of Aging in Enteric Neurons: DNA Damage, Transcriptional Silencing, and Mitochondrial Changes.**
L. MOMBEEK (1), A. BROSENS (1), R. JEHOUL (1), M. THIJSSEN (2), W. BOESMANS (1), D. WILSON (1) / [1] Hasselt University, Hasselt, Belgium, Neurosciences, [2] Maastricht University Medical Centre, Maastricht, Netherlands (the), Department ofPathology

10:15 233 B 03 **Functional connectivity between neurons in the mesentery and Myenteric neurons in the mouse ileum.**
C. FUNG (1), F. GUO (2), Z. LI (1), P. VANDEN BERGHE (1) / [1] KUL - University of Leuven, Leuven, Belgium, TARGID, [2] Qingdao University, , China, Physiology & Pathophysiology Department

10:30 – 11:00 Coffee Break

Session 2
Moderators: Tim Vanuytsel (KU Leuven), Peter Verstraelen (University of Antwerp)

11:00 96 B 04 **Role of dopamine receptor D1 in regulating intestinal stem cell lineage specification in human intestinal organoids.**
S. BOEL (1), M. FARHADIPOUR (1), A. DUBOIS (2), T. THIJS (1), L. CEULEMANS (2), I. DEPOORTERE (1) / [1] Translational Research Center for Gastrointestinal Disorders (TARGID), KULeuven, Leuven, Belgium, Chronic Diseases and Metabolism (CHROMETA), [2] University Hospitals Leuven (UZLeuven), Leuven, Belgium, Leuven Intestinal Failure and Transplantation (LIFT) Center

11:15 218 B 05 **Intestinal Organoids as a model for small intestinal epithelium alterations in Alcohol Use Disorder (AUD).**
A.TOULEHOHOUN (1), P. STARKEL (2) / [1] Institut de Recherche Expérimentale et Clinique (IREC), Catholic University of Louvain (UCL), , Belgium, GAEN, [2] UCL Saint Luc, Brussels, Belgium, Gastroenterology

11:30 137 B 06 **The organoid toolbox; leveraging a chemically defined medium to advance the standard of practice in intestinal organoid research.**
M. VAN SLIGTENHORST (1), C. AKKAYA (1), A. DENADAI SOUZA (1) / [1] KUL - University of Leuven, Leuven, Belgium, Department of Chronic Diseases and Metabolism, Laboratory of Mucosal Biology

11: 45 139 B 07 **Characterization of the role of NKCC1 in colorectal carcinogenesis.**
P. ADAM (1), C. SALÉE (2), M. STEPNIAK (2), C. MASSOT (2), J. LOLY (3), S. VIEUJEAN (3), C. REENAERS (3), C. COIMBRA (4), E. DECKER (4), P. DELVENNE (5), E. LOUIS (3), M. MEUWIS (6) / [1] GIGA Institute, University of Liège, Liège, Belgium, Translational Gastroenterology Laboratory, [2] GIGA Institute, University of Liège, Liège, Belgium, Laboratory of Translational Gastroenterology, [3] University Hospital CHU of Liège, , Belgium, Hepato-Gastroenterology and Digestive Oncology, [4] University Hospital CHU of Liège, , Belgium, Abdominal, endocrine and transplantation , [5] University Hospital CHU of Liège, , Belgium, Pathological Anatomy and Cytology, [6] University Hospital CHU of Liège, , Belgium, Laboratory of Translational Gastroenterology

12:00 Lunch Break

Session 3
Moderators: Ricard Farré (KU Leuven), Lindsey Devisscher (UGent)

14:00 Invited Lecture : The gut-kidney axis: from theoretical concept towards clinical application?
Björn Meijers (Nephrology, UZ Leuven)

14:45 234 B 08 **Serum Amyloid A3 as a key driver of inflammatory signaling along the microbiome gut-brain axis.**
P. VERSTRAELEN (1), N. DE LOOSE (1), R. VERBOVEN (1), K. GRANDO (2), S. OLUBAJO (2), S. VAN REMOORTEL (1), C. TUKEL (2), J. TIMMERMANS (1), W. DE VOS (1) / [1] University of Antwerp, Antwerp, Belgium, Lab of Cell Biology and Histology, [2] Temple University, Philadelphia, United States (the), Center for Microbiology and Immunology

15:00 160 B 09 **Identification of the mechanisms underlying resident macrophage activation in post-operative ileus.**
Z. WANG (1), N. STAKENBORG (2), I. APPELTANS (1), G. BOECKXSTAENS (1) / [1] Translational Research Center for Gastrointestinal Disorders (TARGID), KULeuven, Leuven, Belgium, Department of Chronic Diseases, Metabolism and Ageing, [2] Translational Research Center for Gastrointestinal Disorders (TARGID), KULeuven, Leuven, Belgium, Department of Chronic Diseases, Metabolism and Ageing, TARGID

15:15 131 B 10 **Duodenal ion fluxes may contribute to intestinal fluid losses in patients with short bowel syndrome.**
L. DE MEYERE (1), A. VERBIEST (1), A. VIAENE (1), J. TŐTH (1), L. TIMMERMANS (1),

K. GEBOERS (1), L. WAUTERS (1), R. FARRÉ (1), T. VANUYTSEL (1) / [1] KUL - University of Leuven, Leuven, Belgium, Translational Research Center for Gastrointestinal Disorders (TARGID), KU Leuven, Leuven, Belgium.

15:30 Coffee Break

Session 4
Moderators: Annemieke Smet (University of Antwerp), Guillaume Vanotti (KU Leuven)

16:00 86 B 11 **Repurposed Drug Clioquinol As A Novel Treatment For Treating Barrier Disruption In Inflammatory Bowel Diseases (IBD).**

A. ZOUZAF (1), F. BISCU (1), D. CICIA (1), N. KADAVATH (1), V. DE SIMONE (1), J. DUARTE DA ROCHA PEREIRA (2), B. VERSTOCKT (3), S. VERMEIRE (3), K. THEVISSEN (4), G. MATTEOLI (1) / [1] KUL - University of Leuven, Leuven, Belgium, CHROMETA - TARGID, [2] Rega Institute- KU Leuven, Leuven, Belgium, Microbiology, Immunology and Transplantation, [3] University Hospitals Leuven (UZLeuven), Leuven, Belgium, Department of Gastroenterology and Hepatology,
[4] KUL - University of Leuven, Leuven, Belgium, Microbiology, Immunology and Transplantation

16:15 89 B 12 **The dietary emulsifier κ-carrageenan alters the inflammatory state, but not permeability, of intestinal epithelial cells from patients with Crohn's disease.**

E. VISSERS (1), J. WELLENS (2), L. GIORIO (2), W. ZADORA (3), B. VERSTOCKT (4), M. FERRANTE (4), S. VERMEIRE (4), C. MATTHYS (5), K. ARNAUTS (2), J. SABINO (4) / [1] KUL - University of Leuven, Leuven, Belgium, Department of Chronic Diseases and Metabolism, Translational Research in Gastrointestinal Disorders (TARGID), [2] KUL - University of Leuven, Leuven, Belgium, Department of Chronic Diseases and Metabolism (CHROMETA), Translational Research Center for Gastrointestinal Disorders (TARGID), [3] KUL - University of Leuven, Leuven, Belgium, Department of Microbiology, Immunology and Transplantation, Nephrology and Renal Transplantation Research Group, [4] University Hospitals Leuven (UZLeuven), Leuven, Belgium, Department of Gastroenterology and Hepatology, [5] University Hospitals Leuven (UZLeuven), Leuven, Belgium, Department of Endocrinology

16:30 215 B 13 **Dietary Modulation of TRPM8: A Novel Approach to Immune Regulation in IBD.**

D. CICIA (1), F. BISCU (1), F. IANNOTTI (2), M. MIRAGLIA (3), C. FERRANTE (4), N. IACCARINO (3), S. CADENAS DE MIGUEL (5), B. KE (6), M. NANÌ (3), K. TALAVERA PEREZ (7), I. ELIA (5), R. CAPASSO (8), A. IZZO (3), E. PAGANO (3), G. MATTEOLI (1) / [1] KUL - University of Leuven, Leuven, Belgium, CHROMETA, [2] Istituto di Chimica Biomolecolare, Consiglio Nazionale delle ricerche, Pozzuoli, Jamaica, Institute of Biomolecular Chemistry ICB, [3] University of Naples Federico II, Naples, Italy, Department of Pharmacy, [4] Gabriele d'Annunzio University, Chieti, Italy, Department of Pharmacy, [5] KUL - University of Leuven, Leuven, Belgium, KU Leuven Cancer Institute, [6] KUL - University of Leuven, Leuven, Belgium, CHROMETA , [7] KUL - University of Leuven, Leuven, Belgium, Department of Cellular and Molecular Medicine LICR, [8] University of Naples Federico II, Naples, Italy, Department of Agricultural sciences

16:45 **End of the session and best abstract award**