

Title: SOCS/CRC: A longitudinal colorectal cancer collection for the discovery of new biomarkers and therapeutic targets

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We have established a comprehensive longitudinal National Colorectal Cancer Cohort, designed to support biomarker discovery and the development of novel therapeutic strategies. Leveraging this resource, we have identified pathogenic bacterial species associated with colorectal cancer, alongside prognostic and predictive biomarkers relevant to disease progression and treatment response. Importantly, the cohort has enabled the derivation of patient-specific organoid lines, which we use for personalized medicine approaches, including drug screening and repurposing studies. The cohort is now fully characterized at the metagenomic and transcriptomic levels, with metabolomic profiling currently underway, aiming to create a deeply annotated, multi-omics dataset integrated with longitudinal clinical metadata. This resource offers a powerful platform for translational colorectal cancer research, bridging basic discovery and clinical application.

SPEAKER BIOSKETCH: Dr. Elisabeth LETELLIER (UL)

NAME, SURNAME: Elisabeth, LETELLIER

TITLE: Professor, PhD

CURRENT POSITION AND OTHER RELEVANT PROFESSIONAL ACTIVITIES AND ACCOMPLISHMENTS:

Professor Elisabeth Letellier leads the Molecular Disease Mechanisms (MDM) group within the Department of Life Sciences and Medicine (DLSM) at the University of Luxembourg (UL). She completed her PhD in Molecular Biology at the German Cancer Research Center (DKFZ) in Heidelberg, Germany, and subsequently conducted a postdoctoral fellowship in collaboration with ApoGenix. In 2009, Dr. Letellier joined the DLSM at UL. She transitioned to an independent investigator role and has been co-directing the MDM group since 2020. Her research primarily focuses on elucidating the mechanisms that drive tumor initiation and progression in colorectal cancer, with particular emphasis on the role of the tumor microenvironment.