

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

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We have established a longitudinal national colorectal cancer cohort to support biomarker discovery and the development of innovative therapeutic strategies. This ongoing resource enables the investigation of prognostic and predictive biomarkers relevant to disease progression and treatment response. It also supports the study of pathogenic bacterial species associated with colorectal cancer. The cohort further enables the generation of patient-derived organoid models, which are actively used for personalized medicine approaches, including drug screening and repurposing studies. Alongside genomic and transcriptomic characterization, additional layers of molecular profiling, including metabolomics, are currently underway to enrich this deeply annotated, multi-omics dataset integrated with longitudinal clinical data.

Biosketch

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CURRENT AND PAST POSITIONS

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.