RESEARCH TOPICS

The main research topics at the LGBC focus on tissue homeostasis maintenance and on the cellular response to various stresses, including reactive oxygen species accumulation, disregulated inflammatory pathways, and viral or bacterial infections. Our research topics concern the study of cellular responses to various stresses, such as disregulation of oncosuppressor activity or signaling pathways involved in inflammation or viral or bacterial infections. The laboratory's projects are developed along two lines of research: "Mitochondria, stress responses, and cellular fate" and "Mechanisms involved in inflammatory or infectious diseases." Our projects are conducted using mammalian cell models and the Drosophila model, in particular through the DISSECT platform.

"Mitochondria, stress responses, and cellular fate" axis

- Sideroflexins and mitochondria
- Mitochondrial dynamics, infectious or inflammatory conditions, and intestinal regeneration in Drosophila

"Pathological mechanisms involved in inflammatory or infectious diseases" axis

» Study of the immune response of Drosophila mimicking cystic fibrosis to infections by pathogens prevalent in patients.

» Mechanisms and molecular actors of the intestinal response to infection in the context of HLA-B27.

» Traditional and next-generation probiotics, inflammation, and intestinal dysbiosis.

Platform for studying the behavior of the Drosophila fly DISSECT

» DISSECT platform