

HEALTH, NON-COMMUNICABLE DISEASES AND THE ENVIRONMENT

Assessing and addressing the impact of environment on health to prevent the rise of non-communicable diseases. Non-Communicable Diseases (NCDs) are now the leading cause of preventable morbidity and related disability, and thus significantly affect the wellbeing of many individuals.

All different NCDs are studied in the different Departments of the University of Bologna, and **translational medicine approaches** are put in place thanks to the strong cooperation with clinical departments.

- In relation to liver diseases, researchers have strong expertise in the understanding of pathogenetic basis of hepatitis and novel therapies, treatment of hepatic cancer, unravelling of the onset mechanisms leading to NASH and NAFLD as well as autoimmune liver diseases and their treatment
- In relation to gut disorders, research teams have strong research interest in the prevention and treatment of autoimmune chronic diseases, inflammatory bowel diseases, and the gut surgery. Furthermore, there is also an emphasis on research on biomolecular, therapeutic and social aspects of functional gastrointestinal disorders, neurogastroenterology, intestinal infectious and inflammatory bowel diseases. Last, the study of colon cancer and the role of the microbiome in its development is gaining particular attention

## HIGHLIGHTS

A number of EU-funded research projects reflects the international standing of research groups working in the field of NCDs, e.g. H2020 <u>GlyCoCan</u> which aims to develop new methods to investigate the role of glycosylation in different aspects of colorectal cancer; <u>LIVERHOPE</u> which aims to evaluate a novel therapeutic strategy for patients with cirrhosis; <u>DECISION</u> for the identification of new combinatorial therapies for decompensated cirrhosis.

**Organ transplantations** is historically a major research and clinical excellence at the University of Bologna due to the number of clinical cases and its successful track record, especially for split liver and kidney transplants, as well as the development of novel methodologies to preserve the quality of the donor organs, which made Bologna an internationally renowned center for transplantation.

**Biomedical research:** in 2000 the **Center for Applied Biomedical Research** was funded to provide the scientific community of the St. Orsola-Malpighi University Hospital with an interdisciplinary research facility, a unique location for sophisticated instrumentation aimed at foster collaborative interactions among different research teams, in order to speed up the transition from basic research discoveries to new treatments.