

The University of Bologna has a long-lasting experience in studying the ageing multi-factorial process and its associated non-infectious co-morbidities. In particular:

- Cardiovascular diseases and hypertension: Researchers in this sector have broad experience in the organization and conduction of all phases of clinical trial research, as well as morbidity and mortality trials in hypertension and coronary artery disease
- Pulmonary Hypertension: Research areas of interest are the study of pulmonary arterial hypertension, pulmonary embolism, chronic heart failure, and heart transplantation, as well as treatments connected to the endothelin pathway, the prostacyclin pathway, the nitric oxide pathway
- **Diabetes and obesity:** Researchers in this sector have large experience in glucose and amino acid metabolism; nutrition in patients with cirrhosis, diabetes, obesity, and in normal ageing; quantification of liver function; insulin resistance; non-alcoholic fatty liver disease; disease management of the metabolic syndrome, obesity and eating disorders across the life span; epidemiology, treatment and outcome assessment

## **HIGHLIGHTS**

The integration of preclinical and clinical research with therapeutics and care is a strong asset of the University of Bologna. The first double blind, placebo-controlled study on the effect of the endothelin receptor antagonist (bosentan) on the echocardiographic and Doppler parameters in PAH patients has been conducted.

A number of clinical studies and EU funded projects have been carried out in these areas, such as: CARBALIVE - Clinical evaluation of carbons of controlled porosity as a new therapeutic for the treatment of liver cirrhosis and non-alcoholic fatty liver disease; ESCAPE - Evaluation of a patient-centred biopsychosocial blended collaborative care pathway for the treatment of multimorbid elderly patients; PAPA-ARTIS - Paraplegia prevention in aortic aneurysm repair by thoracoabdominal staging with 'minimally- invasive segmental artery coil-embolization': a randomized controlled multicentre trial; DECISION - Decompensated cirrhosis: identification of new combinatorial therapies based on systems approaches.