

# Cardiovascular diseases

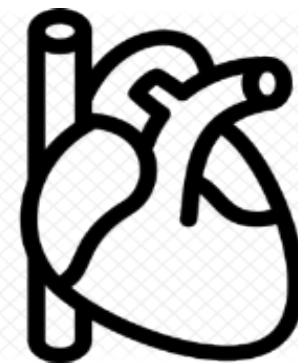
A dedicated portfolio of services for your biomarker research

## THERAPEUTIC FOCUS

- Heart failure
- Coronary heart disease
- Acute myocardial infarction
- Cardiomyopathies
- Congenital heart diseases
- Hypertension
- Heart rhythm disorders
- Atherosclerosis/dyslipidaemia

## CLINICAL STRENGTHS

- Experts in CVD biomarkers, focus on biomarkers in heart failure
- Biomarker studies in patients
- Pilot and Pivotal device studies with CROs
- Biomarker research in Phase I and II clinical trials
- Phase I and II studies conducted with CROs
- Phase II and III efficacy studies
- Advanced cath-lab facilities
- Advanced cardiac imaging solutions (Echocardiography, CMR, PETMR, CT, PETCT)
- Study gene-environment interaction, advanced-omics analyses and drug development
- In-vivo disease modeling



## SAMPLE COLLECTIONS

- Biomarker discovery in general population biobank (167.000 subjects)
- Dedicated cohorts with (>1000) acute and post-MI patients
- Cohort study Prevention of Renal and Vascular End-stage Disease
- Cohort on congenital heart diseases
- Dedicated cohorts studies with heart failure patients
- Long-term follow up & early intervention studies
- Possibility of de-novo sampling in patients
- Samples and information from: cells, whole blood, plasma, urine, blood DNA

## BIOANALYTICAL SOLUTIONS

- **Specialty assays for cardiovascular diseases:**
  - **CICP, vWF, SGP-130, IL6, IL6R**
  - **Cathepsin D, 25-hydroxyvitamin D, ferritin**
  - **MMP-2 and relaxin**
  - **NTProBNP, BNP, ST2, GDF-15**
  - **Parathyroid hormone**
  - **High-sensitivity troponin T, Galectin-3**
  - **Renal/neurohormonal biomarkers (aldosterone, phosphate, parathyroid hormone, plasma renin concentration and creatinine)**
  - **5-oxoproline, sTRAIL**
  - **HDL functionality as biomarker**
- Validated assays are available in plasma and/or urine in samples from human, rat or mice

## PRECLINICAL CAPABILITIES

- Pre-clinical pharmacology and toxicology studies
- Strong connection between preclinical and clinical research
- Experimental cardiology laboratory with cell cultures and laboratory animal research