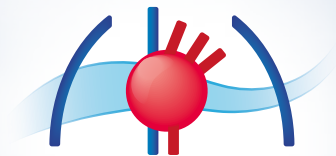


RESEARCH LABORATORY



l'institut  
du thorax

NANTES - FRANCE



Cardiac  
Diseases



Vascular  
Diseases



Metabolic  
Diseases



Pulmonary  
Diseases

THE PATIENT AT THE HEART  
OF RESEARCH



# The laboratory of l'institut du thorax IN FIGURES

As part of *l'institut du thorax*, our laboratory combines **fundamental and clinical research**, draws on **multidisciplinary expertise** and **innovates to better prevent and treat** cardio-neurovascular, metabolic and pulmonary diseases.



85

SCIENTISTS  
AND PHYSICIANS

71

RESEARCH  
ENGINEERS AND  
TECHNICIANS

40

PHD STUDENTS  
including 10 new  
theses each year

100

INTERNS\*  
(from middle school  
to Master's level)





**30**



**SEMINARS\***  
by internationally  
renowned scientists

**150**

**SCIENTIFIC  
PUBLICATIONS\***



**ANNUAL RESEARCH BUDGET\*:**

**€5.1 million**



\*2024 data

# RESEARCH to better understand



*L'institut du thorax* research laboratory (Nantes Université, Inserm UMR 1087, CNRS UMR 6291) is dedicated to **studying the genetics and pathophysiology of human diseases affecting the heart, arteries, lungs, and metabolism.**

Located in the heart of Nantes, our research unit benefits from a dynamic scientific environment directly connected to the University Hospital (CHU).

Our laboratory maintains international collaborations with institutions in Europe, Canada, the United States, and Japan, strengthening its position as **a center of excellence in biomedical research.**

# A LABORATORY OF EXCELLENCE

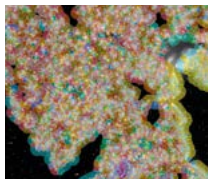
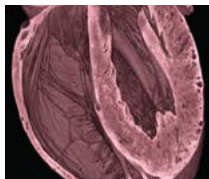
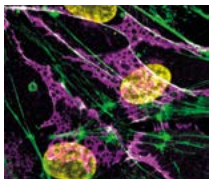


Our **translational research programs**, in close collaboration with the Clinical Investigation Center (CIC) of *l'institut du thorax*, aim to **identify new genes, biomarkers, and therapeutic targets**.

Thanks to our unique biocollections (biopsies, blood, DNA), we transform discoveries from basic research into concrete clinical applications to **improve patient care**.

## COMPLEMENTARY EXPERTISES IN SYNERGY

- Molecular biology and biochemistry
- Cell biology, mechanobiology, and organoids
- Genetics and genomics
- Imaging and microscopy
- Bioinformatics
- Mathematical modeling and artificial intelligence
- Integrated physiology and functional explorations (electrophysiology, microsurgery, etc.)
- Pharmacology



# CE in biomedical research

## OUR FOCUS AREAS



### CARDIAC DISEASES

Cardiac arrhythmias, Valvular diseases, Congenital heart diseases...



### VASCULAR DISEASES

Intracranial aneurysms, Hypertension, Atherosclerosis...



### METABOLIC DISEASES

Hypercholesterolemia, Diabetes, Obesity...



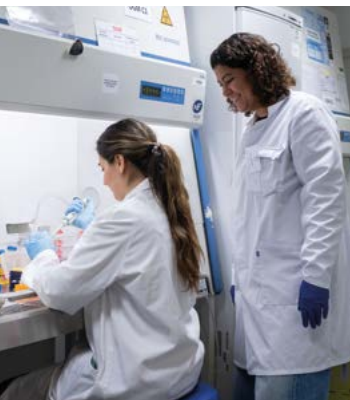
### PULMONARY DISEASES

Asthma, Pulmonary hypertension

# TRAINING BY AND FOR research

Our laboratory plays a key role in the training of students in life sciences and medicine, notably through its involvement in the interdisciplinary Master and PhD program **InnoCARE** (*Innovation for Cardiovascular, Metabolic, and Respiratory Diseases*), and by providing access to:

- **Weekly scientific conferences**
- **National and international symposia**
- **International research stays in partner laboratories**
- **Technical training**
- **Internships within the CIC and hospital departments**



The laboratory also supports the development of scientific careers for young researchers, both French and international. Nearly 70 per cent of our students continue into academic scientific careers (postdocs, research positions), while 25 per cent find employment in the private sector.

Founded in 2004, *l'institut du thorax* was created by **physicians and scientists** to establish a **major hub focused on cardio-neurovascular, metabolic, and pulmonary diseases.**

| MEDICAL DEPARTMENTS |  
| RESEARCH LABORATORY |  
| CLINICAL RESEARCH |

Accredited by Nantes Université, Inserm, CNRS, and the Nantes University Hospital, it fulfills its public health mission with a **commitment to excellence.**

“From the laboratory to the patient’s bedside”, the institute brings together 1,000 collaborators. The research laboratory is one of the three main components of *l'institut du thorax*, sharing a common goal:

**accelerating research for the benefit of patients.**

L'institut du thorax research laboratory  
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