Master

Cardiac EP – Electromechanical Heart Diseases

Program Outline

The Cardiac EP Master's degree provides research and innovation-based training for versatile, high-level specialists in the field of electrophysiology and cardiac bioengineering.
The program brings a global and transversal approach to all pathologies, including a cardiac electrophysiological component.

Admission Requirements

French medical students must have a validated DFASM3 or DFASP2 (advanced medical or pharmaceutical science training degrees)

› EU/FR students and non-EU students must have completed a 4 year degree in the field of medical/biomedical/biological science, veterinary science or pharmaceutical science or engineering (including CPGE (Preparatory classes for Grandes Ecoles for French students)

Academic Cooperation

The Cardiac EP Master of Science degree is delivered along with Liryc, the University-Hospital Electrophysiology and Heart Modeling Institute.

Program duration

1 year, including an internship (60 ECTs).

Language Requirements

Program taught entirely in English, a B2 level according to the CEFR is required.

Fees and scholarships

› Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

› Scholarships may be granted to selected applicants on demand.

Strengths

› Unique multidisciplinary teaching program focusing on cardiac. electrophysiology and arrhythmias

› Research-based teaching with practical sessions hosted within the laboratory.

› Ideal research and training environment with world-renowned experts in the field, including international academic and industrial partners, contributing to the program.

› Multitude of international mobility possibilities with students benefitting from a large network of international collaborators.

› High-level training increasing students' employability and offering possibilities to continue with a PhD program in the field of cardiac electrophysiology.

Year 2

Semester 1

Didactic session (30 ECTS)

Core program

- Cardiac physiology and pathophysiology, signal
- acquisition & treatment, modelisation, cardiac imaging
- Electromechanical heart diseases: heart failure, supraventricular arrhythmia, ventricular arrhythmia & sudden death
- Treatments of electromechanical heart diseases (treatments of heart failure, heart stimulation, ablation and pharmacological treatment of arrhythmias)
- Regulation and innovation economics
- Technological and therapeutic innovations
- Scientific communication skills
- Hands-on group projects
- Heart failure, bioenergetics and stimulation
- Cardiac electrophysiology and arrhythmias
- Cardiac devices

Semester 2

Internship (30 ECTS)

- Internship within a research laboratory, hospital department or within the industrial sector.

How to apply?

Documents required for the selection procedure:

- Application form
- Copies of all graduate diplomas (BSc and MSc)
- All previous transcripts
- CV in English (2 pages maximum)
- Cover letter in English (2 pages maximum)
- Recent English certificate or any document certifying a B2 level of English upon review.
- Whenever possible (optional), one recommendation letter from an academic or professional body (2 pages maximum), including the referee's signature, presented on institutional headed paper and bearing an institutional stamp/seal.

And after?

Students benefit from high-level training and long-standing collaborations with international research centers and industrial partners in the field of cardiac electrophysiology.
Multiple opportunities are therefore available to:

- Pursue a career in the biomedical industry
- Further studies by enrolling in PhD training
- For professionals, boost their career path within their sector.

Website

Contact

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