

Bordeaux Summer School

Cardiac electrophysiology

June 29th – July 03th 2026



In a nutshell

This summer school, dedicated to the study of fundamental cardiac electrophysiology. It is open to international science and medical students, engineers and more experienced researchers wishing to improve their background knowledge.

During the five day session, the course offers intensive theoretical and practical sessions concerning all aspects of cardiac electrophysiology, from the molecular level to pre-clinical investigations and patient care.

Participants will meet with world leading experts in cardiac electrophysiology



Expertise upon completion

A certificate of participation indicating the number of training hours completed will be awarded to students at the end of course.

Participants may count these hours towards their supplementary doctoral training programmes.



Programme*

Day 1 : June 29th

- › Cardiac anatomy (course and live demonstration)
- › Biophysics of membranes and cellular electrophysiology
- › Cardiac hemodynamics
- › Introduction to clinical electrophysiology

Day 2 : June 30th

- › Cardiac implantable devices : connected health
- › Sustainability
- › Mathematical modeling and simulations
- › The segmentation/meshing of cardiac images
- › Experimental and clinical applications of signal processing techniques
- › Benefits of isolated perfused heart models for studying cardiac electrophysiology and arrhythmias

Day 3 : July 01st

- › Pathophysiological aspects of primary electrical disorders
- › Heart failure and electromechanical remodeling
- › Atrial fibrillation: pathophysiology, diagnostic and new treatment
- › Ventricular fibrillation and sudden cardiac death : mechanisms and individualised approaches for treatment
- › VT ablation
- › Cardiac neuromodulation

Day 4 : July 02th

- › Laboratory demonstrations

Day 5 : July 03th

- › Cardiac optical imaging
- › Micro CT imaging of the heart
- › Basics of Magnetic Resonance Imaging (MRI)
- › High-field MRI
- › Advanced cardiac MRI
- › Interventional MRI
- › Ultrafast Ultrasound Imaging in Cardiology
- › Cardiac imaging at the hospital

*Programme may be subject to change.

A panel of experts (Speakers may be subject to change).

Lecturers include leading clinicians and researchers from different areas of cardiac electrophysiology.

- › **Jason Bayer:** IHU Liryc - Bordeaux Institute of Mathematics, France
- › **Laura Bear:** IHU Liryc, France
- › **David Benoist:** University of Bordeaux - IHU Liryc, France
- › **Olivier Bernus:** University of Bordeaux - IHU Liryc, France
- › **Pierre Bordachar:** University of Bordeaux - Bordeaux University Hospital, France
- › **Aurélien Bustin:** Bordeaux University Hospital - IHU Liryc, France
- › **José Angel Cabrera Rodriguez:** Hospital Ruber Juan Bravo - Quironsalud, Spain
- › **Peng-Sheng Chen:** Cedars-Sinai Medical Center, USA
- › **Hubert Cochet:** Bordeaux University Hospital - IHU Liryc, France
- › **Pierre Dos Santos:** Bordeaux University Hospital - IHU Liryc, France
- › **Rémi Dubois:** IHU Liryc, France
- › **Josselin Duchateau:** Bordeaux University Hospital - IHU Liryc, France
- › **Michel Haissaguerre:** Bordeaux University Hospital - IHU Liryc, France
- › **Nick Linton:** Imperial College London, United Kingdom
- › **Joost Lumens:** Maastricht University, the Netherlands
- › **Julie Magat:** IHU Liryc, France
- › **Claire Martin:** University of Cambridge - Cambridge, England
- › **Stanley Nattel:** University of Montreal- Montreal HeartInstitute, Canada
- › **Valery Ozenne:** IHU Liryc - Center for Magnetic Resonance of Biological Systems, France
- › **Sylvain Ploux:** Bordeaux University Hospital - IHU Liryc, France
- › **Sylvia Priori:** Spanish National Centre for Cardiovascular Research, Spain
- › **Bruno Quesson:** IHU Liryc, France
- › **Marc Strik:** Bordeaux University Hospital, France
- › **Fanny Vaillant:** IHU Liryc, France
- › **Olivier Villemain:** IHU Liryc, France
- › **Richard Walton:** IHU Liryc, France

Why Bordeaux ?

Bordeaux boasts a long tradition of excellence in cardiovascular medicine, in particular with the creation of Liryc - the Heart Rhythm Disease Institute, led by Prof. Pierre Jaïs.

Liryc is a research, treatment, innovation and teaching institute. Its strength lies in its scientific expertise and close collaboration with world leading clinical teams.

Offering unique technology platforms with state-of-the-art equipment, the multidisciplinary teams at Liryc develop novel diagnostic tools, medical devices and innovative therapies.

The congenital heart disease team of Prof. Jean- Benoit Thambo is involved in several translational research and education programmes, especially in the field of percutaneous therapies.

As part of its mission to disseminate knowledge gained from research, Liryc is committed to university training in cardiovascular medicine with the University of Bordeaux.



Dates: June 29th - July 03th, 2026

N° of participants: 35

Language: Classes are conducted in English. Candidates should have at least a B2 level of English or equivalent.

Location: Classes take place at Liryc - the Heart Rhythm Disease Institute - Avenue du Haut-Lévêque, 33600 Pessac (France)

Participant profile: The course is tailored to graduate and doctoral science and medical students, as well as more experienced researchers wishing to improve their background in the field of congenital heart diseases.

Applications: To be completed online via the website bss-cardiac-electrophysiology.u-bordeaux.fr
A CV and cover letter will be necessary.

Deadline: May 29th, 2026

Participation fee: 835€ (including tax) per participant (including lunches, coffee breaks, accommodation and social programme costs).
For payments made by institutions and companies, please contact us for a quote

Practical information

université
de BORDEAUX



More information :

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