



SPEAKERS

- **D. BENOIST** : PhD, University of Bordeaux, France
- **O. BERNUS** : PhD, University of Bordeaux, France
- **P. BORDACHAR** : MD PhD, Bordeaux University Hospital, University of Bordeaux, France
- **F. BRETTE** : PhD, University of Bordeaux, France
- **J-A. CABRERA RODRIGUEZ** : MD PhD, Hospital Universitario Quirónsalud, Madrid, Spain
- **P-A. CHEN** : MD PhD, Editor-in-chief HeartRhythm, Indiana University, USA
- **H. COCHET** : MD PhD, Bordeaux University Hospital, University of Bordeaux, France
- **R. CORONEL** : MD PhD, Academic Medical Center Amsterdam, Netherlands
- **R. DUBOIS** : PhD, Researcher, University of Bordeaux, France
- **J. DUCHATEAU** : MD PhD, Bordeaux University Hospital, University of Bordeaux, France
- **P. JAIS** : MD PhD, Bordeaux University Hospital, France
- **K. HALIOT** : PhD student, IHU Liryc, France
- **N. LINTON** : MD PhD, Imperial College of London, United-Kingdom
- **J. LUMENS** : PhD, CARIM University of Maastricht, Netherlands
- **M. MEO** : PhD, University of Bordeaux, France
- **P. PASDOIS** : PhD, University of Bordeaux, France
- **M. POTSE** : PhD, University of Bordeaux, France
- **B. QUESSON** : PhD, University of Bordeaux, France
- **M. STUBER** : PhD, University of Lausanne, Switzerland
- **R. WALTON** : PhD, University of Bordeaux, France
- **E. WHITE** : PhD, University of Bordeaux, France

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Contact

laure.dangles@ihu-liryc.fr
(+33) 5 35 38 19 36



SUMMER+ SCHOOL

PROGRAM

July 8-12, 2019 - Pessac

CARDIAC ELECTROPHYSIOLOGY



SUMMER SCHOOL

DAY 1: July 8th, 2019

08:30 - Welcome & Introduction
P. BORDACHAR

09:00 - Introduction to clinical electrophysiology
J. DUCHATEAU

10:45 - Break

11:00 - Introduction to cellular electrophysiology: the action potential and excitation-contraction coupling
E. WHITE

12:30 - Lunch

13:30 - Atrial fibrillation: pathophysiology, diagnostic and treatment
O. BERNUS

15:00 - Break

15:30 - Mechanism of ventricular fibrillation and sudden cardiac death
R. CORONEL

DAY 2: July 9th, 2019

08:30 - Cardiac neuromodulation
P.S. CHEN

10:00 - Break

10:15 - Cardiac hemodynamics
J. LUMENS

12:15 - Lunch

13:15 - Tour of the experimental platform
O. BERNUS

14:00 - Mathematical modeling and simulations
M. POTSE

15:00 - Break

15:30 - Mathematical modeling and simulations
M. POTSE

DAY 3: July 10th, 2019

08:30 - The patch clamp technique
F. BRETTE

09:30 - Imaging intracellular calcium dynamics
D. BENOIST

10:30 - Break

10:45 - Cardiac optical imaging
O. BERNUS

11:45 - Cardiac bio-energetics and the working heart model
P. PASDOIS

13:00 - Lunch

14:00 - Lab demonstration

15:00 - Break

15:30 - Lab demonstration



DAY 4: July 11th, 2019

08:30 - Cardiac anatomy (course and demonstration)
J.A. CABRERA RODRIGUEZ

10:00 - Break

10:30 - Cardiac implantable devices
P. BORDACHAR

12:00 - Lunch

13:30 - Signal processing techniques and data analysis
R. DUBOIS

15:00 - Break

15:30 - Experimental and clinical applications of signal processing techniques
N. LINTON, M. MEO

July 11th - Course dinner

Meet us at 19:30 at «Les Petits Caprices»
Domaine de Raba - 35 Rue Rémi Belleau, 33400 Talence

DAY 5: July 12th, 2019

08:30 - Basic of MRI
B. QUESSON

09:00 - High field of MRI
B. QUESSON & K. HALIOT

09:30 - Advanced cardiac MRI techniques at Clinical field
M. STUBER

10:00 - Break

10:30 - Micro CT imaging of the heart
R. WALTON

11:15 - Interventional MRI
B. QUESSON

12:00 - Lunch

13:00 - Cardiac imaging at the hospital
P. JAIS, H. COCHET

15:00 - Break

15:30 - Cardiac imaging at the hospital
P. JAIS, H. COCHET

17:00 - Conclusion of the summer school

