

# Curriculum vitae

Olivier Ghislain BERNUS

## Current position and functions

**Professor**, Université de Bordeaux (France)

**Team Leader**, « Cardiac Electrophysiology » team, Centre de Recherche Cardiothoracique de Bordeaux, U1045, Université de Bordeaux (France)

## Education and qualifications

January 2013	<b>Qualification</b> – Professeur des Universités (CNU section 63 and 66)
November 2012	<b>Habilitation à Diriger des Recherches</b> , Université Bordeaux Segalen (France)
May 2003	<b>PhD Biophysics</b> « Development of a realistic computer model of the human ventricles for the study of reentrant arrhythmias », Ghent University (Belgium)
July 1999	<b>MSc Mathematics</b> (summa cum laude), Ghent University (Belgium)
July 1997	<b>BSc Physics</b> (cum laude) and <b>BSc Mathematics</b> (cum laude), Ghent University (Belgium)

## Career history

2014 – present	<b>Professor</b> , Inserm U1045 – Centre de Recherche Cardio-Thoracique de Bordeaux, Université de Bordeaux, Bordeaux (France)
2019 – 2023	<b>Deputy Director</b> of the Health Sciences and Technologies Department, Université de Bordeaux (France)
2011 – 2022	<b>Scientific Director</b> of the Electrophysiology and Heart modeling Institute (IHU Liryc), Bordeaux (France)
2011 – 2014	<b>Assistant Professor</b> , Inserm U1045 – Centre de Recherche Cardio-Thoracique de Bordeaux, Université de Bordeaux, Bordeaux (France)
2007 – 2011	<b>Tenure-track Independent Research Fellow</b> , Institute of Membrane and Systems Biology, Faculty of Biological Sciences, University of Leeds (UK)
2004 – 2006	<b>Postdoctoral Research Fellow</b> , Department of Pharmacology, SUNY Upstate Medical University, Syracuse (USA)
1999 – 2003	<b>PhD student</b> , Department of Mathematical Physics and Astronomy, Ghent University (Belgium)

## Publications and presentations

- h-index: 28 (Web of Science), 29 (Scopus), 34 (Google Scholar)
- Peer-reviewed articles: 101 (Web of Science)
- Book chapters: 8
- Books: 2
- Invited presentations at national and international conferences: 29
- Abstracts at international conferences: 111

## Funding (last 5 years)

- Leducq Transatlantic Network of Excellence “Bioelectronics for neurocardiology” (2024 – 2029), 1.35M€. **Senior Investigator**.

- ANR PurkinjeNet “Purkinje-system remodeling in life-threatening arrhythmias”, (2023-2025), 210k€. **Co-Investigator.**
- Fédération Française de Cardiologie “Rôle spécifique des canaux TRPM et des fibres de Purkinje dans la mort subite” (2022-2023), 50k€. **Principal Investigator.**
- Leducq Transatlantic Network of Excellence “[RHYTHM: Repolarization Heterogeneity imaging for personalised Therapy of Heart Arrhythmia](#)” (2016 – 2022), 1.09M€. **Senior Investigator.**
- ANR UNMASC “Understanding the remodeling processes during atrial fibrillation stabilization for improved therapeutics” (2017 – 2022), 405k€. **Collaborator.**
- Fondation Coeur et Artères “TARGET : Altérations micro-structurelles liées aux fibrillations ventriculaires: caractérisation cellulaire et électrocardiographique” (2017-2020), 300k€. **Collaborator.**
- Conseil Régional Aquitaine “Plateforme d’imagerie et biologie moléculaire” (2017-2019), 920k€. **Principal Investigator.**

### Innovation and industrial collaboration

- Patents: 4
- Collaborator on a grant from BioSense Webster (Johnson & Johnson, 750k€, 2020-2023) aiming at developing novel high-resolution catheters for mapping of the ventricular conduction network.

### Awards and prizes

- Poster Award, ESF Cardiac Dynamics meeting, Bratislava, Slovakia, 2009.
- Visiting Professorship at the Newton Institute, Cambridge, UK, 2009.
- Career Development Award (£1,500) from the Multidisciplinary Cardiovascular Research Centre (MCRC) at the University of Leeds, Leeds, UK, 2008.
- Honorary Fellowship, Research Foundation Flanders, Belgium, 2007-2008.
- Postdoctoral Fellowship, Research Foundation Flanders, Belgium, 2005-2007.
- PhD Studentship, Flemish Institute for the Promotion of Scientific and Technological Research in Industry, Belgium, 1999-2003.

### Editorial and grant reviewing activities

- **Associate Editor** for Frontiers in Cardiac Electrophysiology (2012– present).
- **Review Editor** for Frontiers in Computational Biology and Medicine (2011– present).
- **Guest Editor** for American Journal of Physiology, Physica D and Plos Computational Biology.
- **Article reviews** for over 30 journals in Medicine, Cardiology, Physiology, Biomedical Engineering, Computer modeling and Imaging.
- **Grant reviews** for The European Science Foundation (Europe), L’Agence Nationale de la Recherche (France), Engineering and Physical Sciences Research Council (UK), The Hadwen Trust (UK), Medical Research Council (UK), Wellcome Trust (UK), Austrian Science Fund (Austria), Thailand Research Fund (Thailand), Fund for Scientific Research (Belgium).

### Organization of scientific meetings

- Liryc Cardiac EP Summer School, Bordeaux, France, 2019 & 2022.
- Atrial Signals – Physicians meet engineers, Bordeaux, France, 2019.
- RHYTHM Leducq Transatlantic Network workshop, Bordeaux, France, 2017.
- Northern Cardiovascular Research Group Meeting, Leeds, UK, 2008.
- International Workshop on Non-linear Dynamics in Excitable Media, Ghent, Belgium, 2007.

### Supervision of postdoctoral fellows, PhD students and MSc students

- Postdoctoral fellows (since 2008): 14
- PhD students (since 2011): 7
- MSc students (since 2007): 16