

Yvan DEVAUX, PhD

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[ResearchGate profile](#) / [LinkedIn profile](#)

103 publications in peer-reviewed journals, 20 review articles, 5 book chapters.

Cumulative impact factor: 568

Citations: 4499

H-index: 30 (Scopus) 35 (Google Scholar)

G-index: 41

Head, [Cardiovascular Research Unit](#), Luxembourg Institute of Health (L.I.H.).

Chair of [CardioRNA COST Action](#): a consortium of 36 countries focusing on catalysing transcriptomics research in cardiovascular disease.

PERSONAL STATEMENT

My background training is in Biological Sciences, focusing on Biology and Health during my PhD in France and a post-doc in the US. I joined the Luxembourg Institute of Health (LIH) in 2005 and became Head of the Cardiovascular Research Unit in 2017. My main interest is the discovery and validation of novel RNA biomarkers and therapeutic targets of multiple diseases. Since my research is translational and I believe that collaboration can forward this area of research. I founded the Cardiolinc network in 2014 to bring together complementary expertise from clinicians, basic researchers, statisticians, bioinformaticians, systems biologists, and industrials, towards the satisfaction of unmet medical needs. I am currently chairing the COST Action CA17129 which is another opportunity to establish novel partnerships.

EDUCATION / TRAINING

2001 – Ph.D. Biology and Health – University of Medicine, Nancy, France

2001-2004 – Postdoctoral training Biology and Health – University of Pittsburgh, USA

2007 – Habilitation à Diriger les Recherches (HDR), University of Lorraine, France

2017 – Autorisation à Diriger des Recherches (ADR), University of Luxembourg, Luxembourg.

PROFESSIONAL MEMBERSHIPS & OTHER EXPERIENCES

Memberships: American Heart Association, European Society of Cardiology, Working group on Myocardial Function - ESC, International Society for Heart Research, GREAT network on acute cardiac conditions, Cardiolinc.

Reviewer for > 40 different journals and funding agencies.

Scientific advisory boards: International Academy of Cardiology and World Congress on Heart Disease; European Research Area Network on Cardiovascular Diseases (ERA-CVD); HFA Winter Meeting on Basic and Translational Research.

Associate editor: Canadian Journal of Cardiology, Disease Markers, International Journal of Molecular Sciences.

RECENT RESEARCH GRANTS (Principal Investigator)

“MicroRNAs as biomarkers and therapeutic targets of acute cardiac conditions”,

National Research Fund (Luxembourg), 2011-2013. Funding: 747 k€.

“Use of microRNAs to prevent the development of heart failure after myocardial infarction”,

Ministry of Higher Education and Research (Luxembourg), 2013-2016. Funding: 2,510 k€.

“MicroRNAs to predict neurological outcome after cardiac arrest”,

National Research Fund (Luxembourg), 2015-2016. Funding: 407 k€.

“Long noncoding RNAs to predict outcome after cardiac arrest”,

Personalized Medicine Consortium (Luxembourg), 2015. Funding: 50 k€.

“Prognostic miRNA-based test for left ventricular remodelling after acute myocardial Infarction”,

Eurostars, 2016-2019. Funding: 300 k€.

“Long non-coding RNAs to predict outcome after cardiac arrest”,

National Research Fund (Luxembourg), 2018-2020. Funding: 1,066 k€.

“Catalysing transcriptomics research in cardiovascular disease” *European Union – COST ACTION CA17129*, 2018-2022. Funding: 600 k€.

“The function and biomarker potential of mitochondrial microRNAs in hypertension” *H2020-MSCA-IF-2019, Marie Skłodowska-Curie Individual Fellowship*, 2020-2022. Funding 260 k€.



PATENTS

Biomarkers (VEGFB)	WO2010049538
Compositions and Methods for Evaluating Heart Failure (miRNAs)	WO2014083081
Biomarkers for heart failure (MICRA)	WO2017046203
Diagnostic, prognostic & therapeutic uses of long noncoding RNAs	WO2018229046
Novel circular RNAs biomarkers for heart failure (circRNAs-2)	WO2018220185

10 SELECTED PUBLICATIONS

1. Stammet P, Wagner DR, Gilson G, **Devaux Y**. [Modeling Serum Level of S100B and Bispectral Index to Predict Outcome After Cardiac Arrest](#). *J Am Coll Cardiol*.2013; 62(9):851-858.
2. Vausort M, Wagner DR, **Devaux Y**. [Long Non-Coding RNAs in Patients with Acute Myocardial Infarction](#). *Circ Res*.2014; 115:668-677.
3. Goretti E, Wagner D.R., **Devaux Y**. [miRNAs as biomarkers of myocardial infarction: a step forward towards personalized medicine?](#) *Trends Mol Med*. 2014; 20(12):716-725.
4. **Devaux Y**, Zangrando J, Schroen B, Creemers EE, Pedrazzini T, Chang CP, Dorn GW, Thum T, Heymans T for the Cardioline network. [Long noncoding RNAs in cardiac development and ageing](#). *Nat Rev Cardiol*. 2015; 12(7):415-25.
- 5.
6. **Devaux Y**, ... Nielsen N and the TTM-trial investigators. [Circulating miR-124-3p Predicts Outcome After Out of Hospital Cardiac Arrest](#). *JAMA Cardiol*. 2016;1(3):305-313.
7. Vausort M, Salgado-Somoza A, Zhang L, Leszek P, Scholz M, Teren A, Burkhardt R, Thiery J, Wagner DR, **Devaux Y**. [MICRA: Myocardial Infarction-associated Circular RNA Predicting Left Ventricular Dysfunction](#). *J Am Coll Cardiol*. 2016;68(11):1247-8
8. **Devaux Y**, Creemers EE, Boon RA, Werfel S, Thum T, Engelhardt S, Dimmeler S, Squire I; Cardioline network. [Circular RNAs in heart failure](#). *Eur J Heart Fail*. 2017 ;19(6):701-709.
9. Jusic A, **Devaux Y**, EU-CardioRNA COST Action (CA17129) [Noncoding RNAs in Hypertension](#). *Hypertension*. 2019 Sep;74(3):477-492
10. Gomes CPDC, Schroen B, Kuster GM, Robinson EL, Ford K, Squire IB, Heymans S, Martelli F, Emanuelli C, **Devaux Y**; EU-CardioRNA COST Action (CA17129). [Regulatory RNAs in Heart Failure](#). *Circulation*. 2020 Jan 28;141(4):313-328.

EDITORIAL ACTIVITIES

Editorial Boards member: Canadian Journal of Cardiology; International Journal of Molecular Sciences (section Molecular Genetics and Genomics); Disease Markers.

Editor of Special Issues:

1. Guest Editor of Topical Collection in Non-Coding RNA Journal: "Regulatory RNAs in Cardiovascular Development and Disease"
 2. Co-Guest Editor of Special Issue in International Journal of Molecular Science: "RNAs in Cardiovascular Diseases- CardioRNA EU COST Action"
- Guest Editor of Special Issue in International Journal of Molecular Science: "RNAs in Brain and Heart Diseases - EU-CardioRNA COST Action".

SUPERVISION of PhD STUDENTS

Completed: 11 Ongoing: 2

AFR
funding

Emilie VELOT 09/2006-12/2008

PhD thesis "Biologie Santé Environnement", Henri Poincaré University, Nancy, France.

YES

Benjamin HAAS 11/2008-12/2011

PhD thesis "Biologie Santé Environnement", Henri Poincaré University, Nancy, France.

Outcome: Phd defence after 3 years of thesis. 3 publications (2 as 1st author). Active participation to 5 international conferences. Presently working in the industry after a post-doc at INSERM in Paris.

YES

Frédérique LEONARD 10/2007-01/2011

YES

PhD thesis «Biochimie, biologie cellulaire et microbiologie fondamentale»
Université catholique de Louvain, Belgique.

Mélanie BOUSQUENAUD 12/2008-07/2012

PhD thesis "Biologie Santé Environnement", Henri Poincaré University, Nancy, France.

Outcome: Phd defence in 2012 after 3 years of thesis. 5 publications (3 as 1st author). Active participation to 6 international conferences. Presently researcher at the Department of Medicine, University of Fribourg (CH). YES

Sarah-Lena PUHL 02/2008-06/2013

PhD thesis, "Universität des Saarlandes", Saarbrücken, Germany.

Outcome: Phd defence in 2013 after 4.2 years of thesis. 2 publications and 3 manuscripts in preparation (2 as 1st author). Active participation to 10 national and international conferences. Presently researcher in Germany after a post-doc at King's College London (UK). YES

Emeline GORETTI 12/2010-10/2014

PhD thesis "Biologie Santé Environnement", Henri Poincaré University, Nancy, France.

Outcome : 13 publications. Working at Fast Track Diagnostics, Luxembourg. FNR-CORE

Bénédicte LENOIR 12/2009-12/2014

PhD thesis « Sciences biomédicales », Université de Liège, Belgique.

Outcome : 13 publications. Post-doc in Mount Sinai, New-York, USA. YES

Jennifer ZANGRANDO 07/2012-10/2015

PhD thesis " Biology, Health and Environment ", Henri Poincaré University, Nancy, France.

Outcome : 6 publications YES

Pascal STAMMET 01/2013-06/2016

PhD thesis "Medical Sciences", University of Liège, Belgium.

NO

Adeline BOILEAU 01/2015 – 11/2018

PhD thesis "Biology, Health and Environment", University of Lorraine, France.

Outcome: 5 publications. Seeking a position. YES

Torkia LALEM 10/2015 - 11/2018

PhD thesis "Biology, Health and Environment", University of Lorraine, France.

Outcome: 3 publications. Seeking a position. NO

Francesca Maria STEFANIZZI 08/2018 - ongoing

University of Lorraine, France.

FNR-CORE

Shubhra ACHARYA 11/2019 - ongoing

University of Luxembourg.

NO