# Univ.-Prof. Dr. med. Dr. h.c. Dobromir Dobrev, MD, FESC, FHRS, FEHRA, FISHR, FIACS

Director of Institute of Pharmacology, Faculty of Medicine, University Duisburg-Essen, Germany

## **Education and Degrees**

1985-1988	Medical studies, Medical University Pécs, Hungary
1988-1992	Medical studies, Dresden University of Technology, Dresden University of Technology
1994	MD (Dr. med., magna cum laude), Dresden University of Technology
1998	Board certified ("Facharzt)" in Pharmacology&Toxicology
2002	Facultas docendi ("Privatdozent") and Venia legendi in Pharmacology&Toxicology

#### **Professional Career**

1992-1994	"Arzt im Praktikum", Dept. of Clinical Pharmacology, Dresden University of Technology
1994-2008	Postdoctoral Fellow, Dept. of Pharmacology&Toxicology, Dresden University of Technology
2008-2010	Professor of Medicine (apl. Prof.), Dresden University of Technology, Dresden
2009-	Appointment as Adjunct Full Professor of Medicine, Montreal Heart Institute, University of
	Montreal, Montreal, Canada
01.07.2010	Appointment as Full Professor (W3) of Experimental Cardiology and Chair of Division of
	Experimental Cardiology, Medical Faculty Mannheim, University Heidelberg, Germany
01.10.2012	Appointment as Full Professor in Pharmacology and Toxicology (W3) and Director, Institute of
	Pharmacology, Faculty of Medicine, University Duisburg-Essen, Essen, Germany
01.08.2015	Appointment as Adjunct Full Professor of Medicine, Department of Integrative Physiology,
	Baylor College of Medicine, Houston, USA

#### **Awards and Honours**

1999	Poster Award, Annual Meeting of German Society for Experimental and Clinical Pharmacology and Therapy, Berlin
2000	Teaching Award, Gesellschaft von Freunden und Förderern der TU Dresden
2001	Carl Gustav Carus-Teaching Award, Medical Faculty Dresden
2001	Wilhelm P. Winterstein Research Award, German Heart Foundation
2003	Abstract Travel Award, AHA Scientific Sessions, Orlando, USA
2004	Carl Gustav Carus-Teaching Award, Medical Faculty Dresden
2005	Albert-Fraenkel-Award, German Cardiac Society
2010-2015	Work package leader, EU FP7-HEALTH-2010 Large-scale Integrating Project ("The European
	Network for Translational Research in Atrial Fibrillation"; <a href="http://www.eutraf.eu/">http://www.eutraf.eu/</a> )
2011-2013	Co-coordinator of Arrhythmia Research Program and Member of Research Coordinating
	Committee, German Centre for Cardiovascular Research ("Deutsches Zentrum für Herz-
	Kreislauf Forschung")
2012	Outstanding Achievement Award, European Cardiac Arrhythmia Society
2007-2013	Grantee Coordinator, Transatlantic Networks of Excellence in Cardiovascular Research
	Program of Fondation Leducq, 07CVD03 ("The European-North American Atrial Fibrillation
	Research Alliance"; http://www.transatlantic-af-alliance.org/
2017	Elected Fellow of the International Academy of Cardiovascular Sciences
2018	Honorary Member of Romanian Society of Cardiology
2018	Elected Fellow of the International Society for Heart Research (FISHR)
2020	Elected Fellow of the European Society of Cardiology (FESC)
2021	Elected Fellow of the European Heart Rhythm Association (FEHRA)
2021	Best Teacher Award 2021, Medical Faculty of University Duisburg-Essen, Germany
2021	Conferred Honorary Doctorate (Dr. h.c.) by University of Medicine & Pharmacy "Carol Davila",
	Bucharest, Romania. Ceremony deferred due to Covid-19 pandemic to October 4, 2022.
2022	Elected Fellow of the Heart Rhythm Association (FHRS)

2023	Carmeliet-Coraboeuf-Weidman Lecture, Delived at the Annual Meeting of ESC Working Group on Cardiac Cellular Electrophysiology, 12-14 June 2023, Copenhagen, Denmark
2023	Best Teacher Award 2023, Medical Faculty of University Duisburg-Essen, Germany
2024	Listed #1/#11 (basic/basic+clinical) in worldwide expert ranking on Atrial Fibrillation and #1/#13
	on Cardiac Arrhythmias ( <u>ExpertScape.com</u> )
2024	Elected Member of Academia Europaea (MAE)
2024	Listed #7 in worldwide expert ranking on Atrial Fibrillation (ScholarGPS™ ID:43844462078996)
2024	Best Teacher Award 2024, Medical Faculty of University Duisburg-Essen, Germany
2024	Listed #520 in Germany and #9788 worldwide in the Ranking of Best Scientists in the field of
	Medicine 2023 (Research.com)
2024	Ranked worldwide the most active and most frequently cited author in the field of Atrial
	Fibrillation and Ion Channels (https://doi.org/10.1016/j.hrthm.2024.01.032)
2025	Listed #10 in worldwide expert ranking on Atrial Fibrillation ( <u>ScholarGPS™</u>
	<u>ID:43844462078996</u> )

#### **Editorial Boards**

2023-2023 Heart Rhythm	2011-2021 Europace 2014-2016 Circulatio 2015- Europear 2016-2019 Internatio 2017- Internatio 2018 Canadian 2018 Internatio 2018 Pharmace 2019- Reviews 2020- PACE 2020- Internatio	Heart Journal - Cardiovascular Pharmacotherapy hal Journal of Cardiology (Associate Editor) hal Journal of Cardiology Heart & Vasculature (Editor-in-Chief) i Interventional Cardiac Electrophysiology Journal of Cardiology (Guest Editor) hal Journal of Cardiology (Guest Editor) hal Journal of Cardiology (Guest Editor) h Cardiovascular Medicine hal Journal of Cardiology (Deputy Editor)
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## Bibliography (Updated on 12. May. 2025)

Total Publications PubMed	473
Publications in the Last 5 Years PubMed	196
Total Impact Factor (incl. work in press)	4649.7
Average Impact Factor per Article	10.7
Average Impact Factor per Original Article	12.7
Total Citations Scopus/GoogleScholar (since 1996)	49333

Total Citations Scopus/GoogleScholar (since 1996)
Citations 2022
Citations 2023
Citations 2024

49333 / 67852
5668 / 8122
5363 / 7747
5356 / 7550

h-Index Scopus91h-Index GoogleScholar (since 2020)103 (70)m-Index = h-Index per Year since First Paper3.0

#### **Most Important Publications (•** Clarivate highly cited papers, top 1% in subject area)

- Dobrev D, et al. & Ravens U (2001) Molecular basis of downregulation of G-protein-coupled inward rectifying K<sup>+</sup> current (I<sub>K,ACh</sub>) in chronic human atrial fibrillation: Decrease in GIRK4 mRNA correlates with reduced I<sub>K,ACh</sub> and muscarinic receptor-mediated shortening of action potentials. *Circulation*, 104: 2551-2557.
- 2. Christ T, et al. & **Dobrev D** (2004) L-type Ca<sup>2+</sup> current downregulation in chronic human atrial fibrillation is associated with increased activity of protein phosphatases. *Circulation*, 110: 2651-2657.
- 3. **Dobrev D**, et al. & Ravens U (2005) The G-protein gated potassium current I<sub>K,ACh</sub> is constitutively active in patients with chronic atrial fibrillation. *Circulation*, 112: 3697-3706.
- 4. El-Armouche A, et al. & **Dobrev D** (2006) Molecular determinants of altered Ca<sup>2+</sup>-handling in human chronic atrial fibrillation. *Circulation*, 114: 670-680.
- 5. Nattel S, Burstein B, **Dobrev D** (2008) Atrial remodelling and atrial fibrillation: mechanisms and implications. *Circ Arrhythm Electrophysiol*, 1: 62-73.
- 6. Chelu MG, et al. & Dobrev D\*, Wehrens XHT\* (2009) Calmodulin kinase II-mediated sarcoplasmic reticulum calcium leak promotes atrial fibrillation in mice. J Clin Invest, 119: 1940-1951. \*shared senior and correspondence authorship
- 7. **Dobrev D**, Nattel S (2010) New antiarrhythmic drugs for treatment of atrial fibrillation. *The Lancet*, 375(9721): 1212-23.
- 8. **Dobrev D**, Carlsson L, Nattel S (2012) Novel molecular targets for atrial fibrillation therapy. *Nat Rev Drug Discov*, 11(4): 275-91.
- 9. Voigt N, et al. & **Dobrev D** (2012) Enhanced sarcoplasmic reticulum Ca<sup>2+</sup> leak and increased Na<sup>+</sup>-Ca<sup>2+</sup> exchanger function underlie delayed afterdepolarizations in patients with chronic atrial fibrillation. *Circulation*, 125(17): 2059-70.
- 10. Voigt N, et al. & **Dobrev D** (2014) Cellular and molecular mechanisms of atrial arrhythmogenesis in patients with paroxysmal atrial fibrillation. *Circulation*, 129(2): 145-56.
- 11. Heijman J, Voigt N, Nattel S, **Dobrev D** (2014) Cellular and Molecular Electrophysiology of Atrial Fibrillation Initiation, Maintenance and Progression. *Circ Res*, 114(9): 1483-99.
- 12. Schmidt C, et al. & **Dobrev D**\*, Thomas D\* (2015) Upregulation of K<sub>2P</sub>3.1 K+ current causes action potential shortening in patients with chronic atrial fibrillation. *Circulation*, 132(2): 82-92. \*shared senior authorship
- 13. Nattel S, **Dobrev D** (2016) Electrophysiological and molecular mechanisms of paroxysmal atrial fibrillation. *Nat Rev Cardiol*, 13(10): 575-90.
- 14. Goette A, Kalman JM, Aguinaga L, Akar J, Cabrera JA, Chen SA, Chugh SS, Corradi D, D'Avila A, Dobrev D, Fenelon G, Gonzalez M, Hatem SN, Helm R, Hindricks G, Ho SY, Hoit B, Jalife J, Kim YH, Lip GY, Ma CS, Marcus GM, Murray K, Nogami A, Sanders P, Uribe W, Van Wagoner DR, Nattel S (2016) EHRA/HRS/APHRS/SOLAECE expert consensus on atrial cardiomyopathies: definition, characterization, and clinical implication. *Europace*, 18(10): 1455-1490.
- 15. Abu-Taha IH, et al. & **Dobrev D**#, Wieland T# (2017) Nucleoside Diphosphate Kinase-C Suppresses cAMP Formation in Human Heart Failure. *Circulation*, 135(9): 881-897. #co-senior and co-correspondence authors.
- 16. Heijman J, Guichard JB, **Dobrev D**, Nattel S (2018) Translational challenges in atrial fibrillation. *Circ Res*, 122(5): 752-773.
- 17. Yao C, Veleva T et al. & **Dobrev D**, Li N (2018) Enhanced NLRP3 Inflammasome Signaling Promotes Atrial Fibrillation. *Circulation*, 138: 2227–2242. (Editorial in *Circulation*, 138; 2243-2246)
- 18. Molina CE, et al. & **Dobrev D** (2018) Profibrotic, Electrical, and Calcium-Handling Remodeling of the Atria in Heart Failure Patients With and Without Atrial Fibrillation. *Front Physiol*, 9: 1383.
- 19. **Dobrev D**, et al. & Nattel S (2019) Post-operative Atrial Fibrillation: Mechanisms, Manifestations and Management. *Nat Rev Cardiol*, 16(7): 417-436.
- 20. Fender AC, et al. & **Dobrev D** (2020) Thrombin receptor PAR4 drives canonical NLRP3 inflammasome signaling in the heart. **Basic Res Cardiol**, 115(2):10.
- 21. Nattel S, Heijman J, Zhou L, **Dobrev D** (2020) The Molecular Basis of Atrial Fibrillation Pathophysiology and Therapy: A Translational Perspective. *Circ Res*, 127: 51–72.

- 22. Heijman J et al. & **Dobrev D** (2020) Atrial Myocyte NLRP3/CaMKII Nexus Forms a Substrate for Post-operative Atrial Fibrillation. *Circ Res*, 127(8): 1036-1055.
- 23. Scott LJ, Fender AC, et al. & **Dobrev D**\*, Li N\* (2021) NLRP3 Inflammasome Is a Key Driver of Obesity-Induced Atrial Arrhythmias. *Cardiovasc Res*, 117(7): 1746-1759. \*\*equal contribution and shared senior authorship.
- 24. **Dobrev D**, Heijman J, Hiram R, Li N, Nattel S (2023) Inflammatory signaling in atrial cardiomyocytes: a novel unifying principle in atrial fibrillation pathophysiology. *Nat Rev Cardiol*, 20(3): 145-167.
- 25. Saljic A, Grandi E, **Dobrev D** (2022) TGF-β1-induced endothelial-mesenchymal transition: a potential contributor to fibrotic remodeling in atrial fibrillation? *J Clin Invest*, 132(13): e161070.
- Grammatika Pavlidou N, et al. & Dobrev D, Molina CE (2023) Phosphodiesterase 8 governs cAMP/PKA-dependent reduction of L-type calcium current in human atrial fibrillation: a novel arrhythmogenic mechanism. *Eur Heart J*, 44(27): 2483-2494. (Editorial in *Eur Heart J*, 44(27): 2495-2497)
- 27. Heijman J, et al. & **Dobrev D** (2023) Enhanced Ca<sup>2+</sup>-Dependent SK-Channel Gating and Membrane Trafficking in Human Atrial Fibrillation. *Circ Res*, 132(9): e116-e133. (<u>Editorial in *Circ Res*, 132(9): 1104-1106</u>)
- 28. Goette A, Corradi D, **Dobrev D**, Aguinaga L, Cabrera JA, Chugh SS, de Groot JR, Soulat-Dufour L, Fenelon G, Hatem SN, Jalife J, Lin YJ, Lip GYH, Marcus GM, Murray KT, Pak HN, Schotten U, Takahashi N, Yamaguchi T, Zoghbi WA, Nattel S (2024) Atrial cardiomyopathy revisited-evolution of a concept: a clinical consensus statement of the European Heart Rhythm Association (EHRA) of the ESC, the Heart Rhythm Society (HRS), the Asian Pacific Heart Rhythm Society (APHRS), and the Latin American Heart Rhythm Society (LAHRS). *Europace*, 26(9): euae204.
- 29. Yuan Y, Martsch P, Chen X, Martinez E, Li L, Song J, Poppenborg T, Bruns F, Kim JH, Kamler M, Martin JF, Abu-Taha I, **Dobrev D**, Li N (2025) Atrial cardiomyocyte-restricted cleavage of gasdermin D promotes atrial arrhythmogenesis. *Eur Heart J*, 46(13): 1250-1262.
- 30. Keefe JA, Aguilar-Sanchez Y, Navarro-Garcia JA, Ong I, Li L, Paasche A, Abu-Taha I, Tekook M, Bruns F, Zhao S, Kamler M, Shen HY, Chelu MG, Li N, **Dobrev D**, Wehrens XHT (2025) Macrophage-Mediated Interleukin-6 Signaling Drives Ryanodine Receptor-2 Calcium Leak in Postoperative Atrial Fibrillation. *J Clin Invest*, epub on March 6: e187711. doi: 10.1172/JCI187711.
- 31. Merino JL, Tamargo J, Blomström-Lundqvist C, Boriani G, Crijns HJGM, **Dobrev D**, Goette A, Hohnloser SH, Naccarelli GV, Reiffel JA, Tfelt-Hansen J, Martínez Cossiani M, Camm AJ (2025) Practical Compendium of Antiarrhythmic Drugs: A Clinical Consensus Statement of the European Heart Rhythm Association of the ESC. *Europace*, epub March 30: euaf076. doi: 10.1093/europace/euaf076.

#### Funding History as Principal/Co-Principal Investigator (selection): Total amount: approx. 10 Mio. €

- 2002-2014 DFG, DO 769/1-3 (Mechanisms of Constitutive I<sub>K,ACh</sub> Channels in AF)
- 2007-2013 Fondation Leducq, Transatlantic Networks of Excellence in Cardiovascular Research Program, 07CVD03 (*European-North American AF Research Alliance*) (Grantee Coordinator)
- 2010-2015 European Union, FP7-HEALTH-2010, large-scale integrating project, Proposal No: 261057 (*The European Network for Translational Research in AF, EUTRAF*) (Work Package Leader)
- 2016-2022 NIH, R01 HL131517 (*Perturbed Sodium and Calcium Fluxes in AF*, with Eleonora Grandi, Davis, USA)
- 2017-2022 DFG, DO 769/4-1 (Molecular Basis and Proarrhythmic Role of SK Channels in AF)
- 2017-2022 NIH, R01 HL136389 (*The Role of Inflammasome in the Pathogenesis of AF*, with Na Li, Houston, USA)
- 2019-2024 NIH, R01 HL089598 (*Ryanodine Receptor Regulation in postoperative AF*, with Xander Wehrens, Houston, USA)
- 2021-2026 European Union, H2020 SC1-BHC-06-2020, large-scale integrating project, Proposal No. 965286 (Machine Learning and Artificial Intelligence for Early Detection of Stroke and Atrial Fibrillation, MAESTRIA)

2021-2025 NIH, 2R01HL131517-06A1 (*Quantifying the Role of Cardiomyocyte Ultrastructure in Atrial Health and Disease*, with Eleonora Grandi, Davis, USA)
2021-2026 NIH, R01HL136389 (*The Role of Gasdermin-D/Interleukin-1 Nexus in Atrial Arrhythmogenesis*,

with Na Li, Houston, USA)

- 2022-2026 NIH, R01HL163277 (Cardiac Fibroblast Inflammasome and Atrial Myopathy, with Na Li, Houston, USA)
- 2023-2027 NIH, R01HL160992 (*Role of Nucleoside-Diphosphate Kinase Signaling in Atrial Fibrillation*, with Xander Wehrens, Houston, USA)
- 2023-2028 NIH, R01HL165704 (Resolution of Inflammation and Atrial Fibrillation, with Samuel Dudley, Minneapolis, USA)
- 2023-2027 NIH, R01HL164838 (FKBP5 and cardiac arrhythmogenesis, with Na Li, Houston, US
- 2024-2029 DFG, Research Training Group 2989 (*Targeting Cellular Interfaces in Reperfused Myocardial Infarction*)
- 2025-2028 NIH, R01HL176651 (Calcium Driven Fibroblast Dysregulation in Human Atrial Profibrotic Remodeling, with Eleonora Grandi, Davis, USA)

#### Major Committees and Professional Services (Selection)

2007-	Member of Scientific Advisory Board, International Academy of Cardiology.
2007-2010	Chair, Working Group on Cellular Electrophysiology, German Society of Cardiology.

2007-2011 Member of Program Committee, German Society of Cardiology.

2007-2008 Member of Program Committee, European Cardiac Arrhythmia Society.

2009- Member of Scientific Committee, Paul-David Chair in Cardiovascular Electrophysiology, Montreal Heart Institute, University of Montreal, Canada.

2010 Member of Scientific Programs Committee, CARDIOSTIM 2010, 17th World Congress in Cardiac Electrophysiology and Cardiac Techniques, 16-19 June, Nice, France.

- 2010-2011 Member of Program Committee, European Heart Rhythm Association (EHRA), Europace 2011, Madrid, Spain.
- 2010-2011 Member of Organizing Committee, "Up-date on Arrhythmias: 25 Years of Radiofrequency Ablation". Rosengarten Conference Center Mannheim, September 15–17, 2011, Mannheim, Germany.
- 2011-2013 Scientific Representative/Principal Investigator of Medical Faculty Mannheim in the German (National) Centre for Cardiovascular Research.
- 2011-2013 Co-Coordinator of "Arrhythmia" Research Programme of the German (National) Centre for Cardiovascular Research.
- 2012-2013 Member of Program Committee of the Annual Meeting of the ESC Working Group on Cardiac Cellular Electrophysiology, 23-24.06.2013, Athens, Greece.
- 2014- Member of Ethics Committee, Medical Faculty of University Duisburg-Essen, Essen, Germany.
- 2014-2016 Member of Programme Committee of ESC Frontiers in CardioVascular Biology Meeting 2016, Florence, Italy.
- 2013-2014 Reviewer, 2014 ESC/EACTS Guidelines on myocardial revascularization: the Task Force on Myocardial Revascularization of the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS).
- 2014-2015 Reviewer, 2015 ESC Guidelines for the management of patients with ventricular arrhythmias and the prevention of sudden cardiac death: The Task Force for the Management of Patients with Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death of the European Society of Cardiology (ESC) Endorsed by: Association for European Paediatric and Congenital Cardiology (AEPC).
- 2015-2016 Member of Congress Programme Committee, European Society of Cardiology, Annual Meeting Rome 2016.
- 2015-2016 Reviewer, ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS: The Task Force for the management of atrial fibrillation of the ESC. Developed

	with the special contribution of EHRA of the ESC. Endorsed by the European Stroke
	Organisation (ESO).
2015-2016	Member of Writing Committee, Position Paper on Atrial Cardiomyopathies: Definition,
	Characterization and Clinical Implication, a joint initiative of EHRA, HRS, APHRS and
	SOLAEGE.
2016-	Council Member, European Section of International Academy of Cardiovascular Sciences.
2017-	Member of Programme Committee of EHRA Annual Meeting 2018, Barcelona, Spain.
2016-2018	Chair, Working Group on Cardiac Cellular Electrophysiology, European Society of Cardiology.
2017-2020	Board Member of European Heart Rhythm Association.
2018-2021	Member of Executive Council, International Academy of Cardiovascular Sciences.
2018	Chairman, Annual Meeting of the ESC Working Group on Cardiac Cellular Electrophysiology,
	Essen, Germany.
2018-2019	Program Committee Chairman, Annual Meeting of European Cardiac Arrhythmia Society 2019,
	June 16-18, Marseille, France.
2018-2020	Past-Chair, Working Group on Cardiac Cellular Electrophysiology, European Society of
0040 0000	Cardiology.
2018-2020	Member of Council on Basic Cardiovascular Science, European Society of Cardiology.
2019-2020	Member of Programme Committee, FCVB 2020, Budapest, Hungary (postponed to 2021).
2019-2023	Member of Nominating Committee, German Society of Cardiology.
2020	Member of Nominating Committee, Working Group on Cardiac Cellular Electrophysiology,
0000 0004	European Society of Cardiology.
2020-2024	Nucleus Member, Working Group on Cardiovascular Pharmacotherapy, European Society of
2020 2022	Cardiology.  Marsh or of Scientific Browner Committee for ISUB World Congress in Berlin, June 12, 15, 2022.
2020-2022 2021-2025	Member of Scientific Program Committee for ISHR World Congress in Berlin, June 12-15, 2022.
2021-2025	Member of Scientific Advisory Board of LYRIC – Electrophysiology and Heart Modelling Institute
2022-	University of Bordeaux, France     Member of Grant Committee, Danish Cardiovascular Academy
2022-2024	Chair-Elect, Working Group on Cardiovascular Pharmacotherapy, European Society of
2022-2024	Cardiology.
2024	Member of Nominating Committee, Working Group on Cardiovascular Pharmacotherapy,
2024	European Society of Cardiology.
2022-2024	Member of Education Committee, European Society of Cardiology
2022-2024	Member of HFA Scientific Committee on Atrial Disorders
2022-2024	Member of Council on Basic Cardiovascular Science, European Society of Cardiology.
2024-2026	Chair, Working Group on Cardiovascular Pharmacotherapy, European Society of Cardiology.

#### Invited presentations to international meetings

- Total > 220 invitations to speak at international meetings
- >10 Plenary/keynote/named lectures

### Examples:

- 1. <u>Plenary lecture</u>: Calcium handling abnormalities in AF promotion. In Joint AHA/ESC Plenary Session "Altered Na and Ca handling in heart disease". **Scientific Sessions of the Heart American Heart Association** 2007, Orlando, USA.
- 2. <u>Plenary lecture</u>: Role of Ca<sup>2+</sup>-handling in atrial fibrillation. In: Plenary Session "Newer developments in atrial fibrillation mechanisms". **4<sup>th</sup> Annual Meeting of European Cardiac Arrhythmia Society** (ECAS), 13-15 April 2008, Marseille, France.
- 3. <u>Plenary lecture</u>: Novel mechanistic insights into the progression of human atrial fibrillation. In: Plenary Session "Management of atrial fibrillation". **14**<sup>th</sup> **World Congress on Cardiac Disease**, Annual Scientific Sessions of International Academy of Cardiology, 26-29 July 2008, Toronto, Canada.

- Plenary lecture: Calcium/Calmodulin Kinase, Dysfunctional Sarcoplasmic Reticulum, and Atrial Fibrillation.
   15<sup>th</sup> World Congress on Heart Disease, Annual Scientific Sessions of International Academy of Cardiology, 24-27 July 2010, Vancouver, Canada.
- 5. <u>Plenary lecture</u>: New Directions in Antiarrhythmic Drug Therapy for AF. In Special Plenary Session: "Atrial Fibrillation: 2012 and the Future". **Scientific Sessions of the Heart American Heart Association**, 4-7 November 2012, Los Angeles, USA.
- 6. <u>Plenary lecture</u>: Nucleoside Diphosphate Kinase C as a Regulator of G-protein Signaling in the Heart. In: "Novel Signaling Pathways in Heart Disease". **Gordon Research Conference "Cardiac Regulatory Mechanisms"**, 8-13 June 2014, New London, NH, USA.
- 7. <u>Keynote lecture</u>: Principle of 2016 ESC AF guideline. In: "Summary in the 2016 ESC guidelines for the management of atrial fibrillation: antithrombotic therapy, rhythm control, rate control". **10**<sup>th</sup> **Asia Pacific Heart Rhythm Society Scientific Session** and the **64**<sup>th</sup> **Annual Meeting of the Japanese Heart Rhythm Society**, 14-17 September 2017, Yokohama, Japan.
- 8. <u>Keynote lecture</u>: New druggable targets for arrhythmias. In: "Arrhythmia research summit: novel mechanisms beget new arrhythmia therapies". **Scientific Sessions of the American Heart Association**, 16-18 November 2019, Philadelphia, USA.
- 9. <u>Keynote lecture</u>: Role of inflammatory signaling in AF. **LIRYC Scientific Meeting**, 13-14 January 2020, Bordeaux. France.
- Carmeliet-Coraboeuf-Weidmann-Lecture. "Cellular and Molecular Electrophysiology of Atrial Fibrillation".
   47<sup>th</sup> Annual Meeting of European Cardiac Society Working Group on Cardiac Cellular Electrophysiology, 12-14 June 2023, Copenhagen, Denmark.