

# **Dario DiFrancesco**

## **Curriculum vitae**

### **Personal**

Citizenship: Italian

Web page: <http://pacelab.it>

Google Scholar: <http://scholar.google.it/citations?user=BjMvgjYAAAAJ>

Wikipedia: [https://en.wikipedia.org/wiki/Dario\\_DiFrancesco](https://en.wikipedia.org/wiki/Dario_DiFrancesco)

### **Education**

University of Milano: Doctoral Degree, 1973 (Summa Cum Laude, Physiology/ Biophysics)

The Physiological Laboratory, Cambridge, UK: Postdoc (Cardiac Electrophysiology)

University Laboratory of Physiology, Oxford, UK: Postdoc (Cardiac Electrophysiology)

### **Research positions and Academic appointments**

9/73- 12/74: Teaching and Research Fellow, Institute of General Physiology, Univ. Milano.

1/75- 12/80: Research Assistant, as above

9/76- 3/77: Postdoctoral fellow in Cambridge, The Physiological Laboratory (R.D. Keynes)

4/77- 12/78: Postdoc in Cardiac Electrophysiology in Oxford, The Lab. of Physiology (D. Noble).

1/81- 6/86: Assistant Professor, Dept. of General Physiology and Biochemistry, Univ. Milano.

6/86- 10/2018: Professor of Physiology, Dept. of General Physiology and Biochemistry, then Dept. of Biosciences, Univ. Milano

10/99-present: lecturer of Physiology at Vita-Salute Univ., San Raffaele Hospital, Milano

11/2018-present: Emeritus Professor, University of Milano

### **Primary areas of research interest**

- Electrophysiology of cardiac tissue and cells
- Ionic currents and rhythmic activity in the heart
- The pacemaker "funny" ( $I_f$ ) current and control of heart rate
- HCN channels in heart and neurons
- HCN channelopathies and cardiac arrhythmias
- Pharmacology of ion channel block by drugs
- HCN channel structure

### **Honors and awards**

1. -Recipient Accademia dei Lincei- Royal Society award 9/1976- 8/1977 (Cambridge- Oxford)
2. -Recipient Wellcome Trust award Research Grants 9/1977- 7/1979 (Oxford)
3. -Recipient Wallace O. Fenn Memorial Fund award for XXVIII IUPS Congress 1980 (Budapest)
4. -Recipient Wallace O. Fenn Memorial Fund award for XXIX IUPS Congress 1983 (Sidney)
5. -Member of the "Academia Europaea" since 1992
6. -International Prize of Physiology "Professeur Pierre Rijlant" Academic Foundation, awarded by the Royal Academy of Medicine of Belgium, 1994
7. -Lectio Magistralis Annual Congress Italian Soc. of Physiology, 1994
8. -League of European Research Universities mention for L.E.R.U. Research Breakthroughs 2006 as representative of best research in the University of Milano
9. - Grand Prix scientifique 2008, Fondation Lefoulon-Delalande- Institut de France, pour les "très remarquables travaux de recherche qui ont conduit à la découverte des canaux ioniques impliqués dans la régulation du rythme cardiaque"  
<https://www.fondation-lefoulon-delalande.fr/grand-prix-scientifique/>
10. -Lectio Magistralis Faculty of Science Univ. Milan 2008
11. -Lectio Magistralis and Prize "Control of cardiac rate by "funny" channels in health and

- disease” Symp. “Translation in Cardiomyopathies: from genes to therapy” Padova 2009
12. -H.C. Burger Award Lecture “The history of the discovery of funny channels” 23rd Cong. Europ. Soc. Noninvasive Preventive Cardiol. “Cardiovascuar Medicine in the Era of Advanced Technology”, Brescia 2009
  13. -Member of the “Istituto Lombardo- Accademia di Scienze e Lettere” since 2013
  14. -Lectio Magistralis Annual Congress Italian Soc. of Physiology, 2013
  15. -2014 Magnes Lecture Prize, Israel Society of Physiology and Pharmacology, Jerusalem January 2015
  16. -2015 Emeritus Membership of the American Physiological Society
  17. -2015 Royal Society Philosophical Transactions 350th anniversary, paper selected among the 33 most important papers since 1665: DiFrancesco & Noble (1985) Phil Trans Roy Soc Lond B 353-398; selection includes Newton, Maxwell, Joule, Faraday, Turing, Medawar, Marr etc See  
<https://royalsociety.org/journals/publishing-activities/publishing350/history-philosophical-transactions/>  
<https://royalsocietypublishing.org/toc/rstb/370/1666>  
<https://doi.org/10.1098/rstb.2014.0316>  
<https://royalsociety.org/blog/2015/04/a-conversation-with-dario-difrancesco-and-denis-noble/>
  18. -2017 Carmeliet-Corabœuf-Weidmann Prize Lecture at 41st EWCCE Congress, Vienna
  19. -2017 Fellow Membership Physiological Society UK
  20. -2019 Emeritus Professor, University of Milano
  21. -2021 Nominated International Union of Physiological Sciences (IUPS) Academy Fellow
  22. -Consulted annually by the Nobel Prize in Physiology or Medicine Committee since 1997

### **Extra-mural grants (selected)**

- CNR International Research Grant (Milano- Oxford) 1982/86, 1987-89, 1990-93
- CNR Research Grant 1989-90
- MDA Basic Research Grant 1985/87
- NIH Research Grant 1987/1989
- CNR Special Project 1991-1992 Italian Coordinator
- UE Human Capital and Mobility grant 1995 through 1997
- Telethon Grant (1998/2001)
- NATO exchange grant 1998-1999 (Columbia University)
- Servier International 1999-2000; 2002-2003; 2005-2006, 2007-2009, 2013-2016
- MIUR FISR CNR Special Projects Functional Genomics 2003-2005
- FIRB Neurobiology 2003-2007
- FIRB Post- genomics 2004-2007
- FIRB New biological therapies for myocardial infarction 2005-2010
- CARIPLO Biological pacemaker 2005-2007; ACROSS-cArdiac paCemakeR ageing: cellular and mOlecular baSiS 2015-2018 (PI); 2015-2018 Partner in two more CARIPLO grants.
- UE “Normacor” 2006-2009
- MURST Cofin-PRIN (1997 through to 2016) including:  
Cofin 1999; Cofin 2000; Cofin 2001; Cofin 2002; Cofin 2003; PRIN 2004- 2006. 2008- 2010
- Le Ren Tang Pharmaceutical 2014-2016 and 2015-2017
- Leducq Foundation Transatlantic Network of Excellence Grant TNE19CVD03: “Fighting Against Sinus Node Dysfunction And Associated Arrhythmias” (FANTASY)

### **Scientific Societies**

Società Italiana di Fisiologia, 1973-present

Soc. Italiana di Biofisica, 1984-1989

ABCD, 1987-2000

The Physiological Society (UK) 1983-present

American Physiological Society (USA) from 1985, Emeritus Membership from 2015

Biophysical Society (USA), 1999-2012

Society for Neuroscience (USA), 2011-2012

### **Editorial and Committee Experience, Consultancies**

-Ad hoc reviewer for all major international journals.

-Editorial Boards:

Journal of Cardiovascular Electrophysiology, 1992-2000

News In Physiological Sciences (NIPS), 1995-2002

Journal of Cardiovascular Pharmacology, 1996-2000

British Journal of Pharmacology, 2003-2007

Frontiers in Cardiac Electrophysiology, 2011-

-National Group Coordinator of Special Committee Grant Project on "Ionic Channels: functions and control mechanisms" 1991-93

-Commissaire de thèse de troisième cicle: Docteur Guy Champigny, Université de Poitiers, 6/1987

-Commissaire de thèse de troisième cicle: Docteur Patrick Bois, Université de Poitiers 12/1989

-Commissaire de thèse de troisième cicle: Docteur Jerome Petit-Jacques, Université de Poitiers 1/1993

-Consultant, N.I.H. Program Project Grant: Ira S. Cohen, State University of New York, Stony Brook, N.Y., 1988-92

-Grant reviewer NATO research project 1/1989

-Consultant, N.I.H. Program Project Grant: Michael Rosen, Columbia Univ., New York, 1993-98 and further renewals until today

-Grant reviewer NATO research project 1/1994

-Commissaire de thèse de troisième cicle: Docteur Jocelin Bescond, Université de Poitiers 12/1996

-Grant reviewer Human Frontiers 12/1996

-Commissaire de thèse de troisième cicle: Docteur Barbara Renaudon, Université de Poitiers 12/1997

-Grant reviewer NATO research project 9/1997

-Expert européen évaluation Unité INSERM U 446 (Rodolphe Fishmeister) Université de Paris Sud, Châtenay-Malabry, 9/1999

-Grant reviewer Human Frontiers 1/2003

-Grant reviewer for Italian Ministry of University and Research and other national and international granting bodies

-Commissaire de thèse de Doctorat Marie Curie: Docteur Angelo Torrente, Université de Montpellier 07/2011

-Grant reviewer for Fondation de Recherche Médicale 7/2011

-Examiner D. Phil. thesis Dr Michael A. Colman, Univ. Manchester 12/2012

-Member Selection Committee for Associate Professor competition Univ. Lleida, Catalonia, Spain 14-16/02/2018

-Member Assessment Committee PhD Thesis Cristina Altrocchi, Maastricht University, 06/2021

### **Summary of early training and research experience**

-9/73 – 7/76 Teaching and research Fellow, then Research Assistant, Ist Fisiol Gen, Un. Milano.

-7/76 - 3/79: PostDoc at The Physiological Laboratory, Cambridge, U.K. and then at the Laboratory of Physiology, Oxford, U.K. (Dr Denis Noble)

-3/79 - 12/80: Wellcome Trust Fellowship at Oxford Un. Lab. of Physiology.

Brief periods spent in various Univ. laboratories of Physiology (Homburg/Saar, Paris XI, Tours).

-3/79 - 12/80: Research Assistant, Ist. di Fisiologia e Biochimica Generali, Un. Milano.

-1/81 - 6/86: Assistant Professor, Dept. of General Physiology and Biochemistry, Univ. Milano.

-6/86 – 10/2018: Full Professor, Dipartimento di Fisiologia e Biochimica Generali, then Dipartimento di Bioscienze, Univ. Milano.

-6/86 - 8/86, 6/88 - 8/88, 6/90 - 8/90: Visiting Professor, SUNY at Stony Brook, NY

-1990-1996 Periodical visiting scientist and consultant, Dept. Pharmacol. Columbia Univ., N.Y.

## **Bibliometrics**

-Over 200 full articles/reviews/book chapters; > 350 publications listed by Google Scholar;  
H-index: 82 citations: 24660 (Google Scholar 06/2024).  
The Google Scholar profile is public: <http://scholar.google.it/citations?user=BjMvgjYAAA AJ>  
ORCID 0000-0002-7322-1790

## **Invited presentations/congresses/named lectures etca:** ~ 230 invitations worldwide

## **Press**

Selected press articles, interviews, citations, video interviews and other material available on the web page <http://pacelab.it>

## **Research mentoring records**

In the course of almost 4 decades, D. DiFrancesco's lab has mentored and hosted a large number of students, postdocs, visitors many of whom have made a career in Physiology and have become established academics/researchers in worldwide locations. Here is a selected list:

- Damir Janigro, Dept. Neurosurgery/NB20, Cleveland Clinic; 9500 Euclid Av., Cleveland, Ohio 44195 (up to 2014);
- Antonio Malgaroli, Vita-Salute University, San Raffaele Hospital, Milano;
- Sergio Visentin, Istituto Superiore di Sanità, Dept. Cell Biology and Neuroscience, Rome;
- Michele Mazzanti, Dept. Biosciences, Univ. Milano, via Celoria 26, 20133 Milano;
- Richard B. Robinson, Dept. Pharmacology Columbia Univ., New York;
- Patrick Bois, IPBC, UMR 6187, CNRS, Université de Poitiers, Poitiers, France;
- Eric Accili, Dept of Cellular and Physiological Sciences, Un. British Columbia, Vancouver, British Columbia, Canada;
- Antonio Zaza, Dept Biotechnology & Biosciences, Univ. Milano-Bicocca;
- Sonia Gasparini, Louisiana State University School of Medicine, Neuroscience Center of Excellence, 2020 Gravier Street, New Orleans;
- Matteo Mangoni, Institute of Functional Genomics, Cardioprotection team-LabEx ICST, Dept Physiology, CNRS UMR 5203, Inserm U661, Univ Montpellier 1 and 2, Montpellier, France
- Gianmaria Maccaferri, Northwestern Univ. Feinberg Sch. Medicine, NU Inst Neurosci., Chicago;
- Mirko Baruscotti, Dept. Biosciences, Univ. Milano, via Celoria 26, 20133 Milano;
- Raimondo D'Ambrosio, Department of Neurological Surgery and Regional Epilepsy Center, Univ. of Washington, Seattle
- Carlo Fiore Visconti, MRC-Mitochondrial Biology Unit, University of Cambridge, UK; now Dept. Biomedical Sciences, Univ. of Padova
- Anna Moroni, Dept. Biosciences and IBF-CNR, Univ. Milano, via Celoria 26, 20133 Milano;
- Claudia Altomare, Cellular and Molecular Cardiology Laboratory, Cardiocentro Ticino Foundation and Swiss Institute for Regenerative Medicine
- Andrea Barbuti, Dept. Biosciences, Univ. Milano, via Celoria 26, 20133 Milano;
- Jocelyn Bescond, Signalisation et Transports Ioniques Membranaires, Univ. Poitiers, France
- Annalisa Bucchi, Dept. Biosciences, Univ. Milano, via Celoria 26, 20133 Milano.

### Invited presentations, named lectures etca

1977	Dec	-London UCL Phys. Soc. meeting (abstract DiFrancesco McNaughthon) -Leuven, speaker 1st meeting EWGCCE
1978	May	-Bonn, seminar (O. Hauswirth)
	May	-Oxford, seminar (K depletion)
	May	-London UCL Phys. Soc. meeting (abstract DiFrancesco Ohba)
	July	-Cambridge Phys. Soc. meeting (abstract DiFrancesco Eisner Lederer)
1979	Feb	-Paris XI Orsay (E. Corabœuf)
	Feb	-Oxford, Lunch Club Seminar (work in Homburg/Saar, IK current)
	Nov	-Homburg/Saar Leuven, speaker 3rd meeting EWGCCE
1980	March	-London UCL Phys. Soc. meeting (abstracts DiFrancesco + DiFrancesco & Noble)
	April	-Paris XI Orsay seminar (Edouard Corabœuf)
	June	-Oxford Phys. Soc. meeting (abstract Brown DiFrancesco Kimura Noble: V clamp SAN)
	July	-Budapest, Inv. Lecturer XXVIII IUPS Congress
	Oct	-Cambridge Phys. Soc. meeting (abstracts DiFrancesco + DiFrancesco & Noble)
	Oct	-Berne, speaker 4th meeting EWGCCE
	Oct	-Amsterdam, invited speaker Symposium: Cardiac Rate and Rhythm
1981	March	-London UCL Phys. Soc. meeting (317: abstract Brown DiFrancesco Kimura Noble: Cs on SAN If)
	March	-Lyon seminar (Oger Rougier, Carlos Ojeda)
	April	-Berne Phys. Soc. meeting (abstract DiFrancesco Hart Noble Shimoni: Ito and If)
	April	-Abano Terme, Fidia Res. Lab. (A. Gorio)
	July	-Oxford Phys. Soc. meeting (320: abstract DiFrancesco: Cs; DiFrancesco Noble: model)
	Oct	-Maastricht (5th EWGCCE cong: abstract DiF. Block activation If)
1982	Feb	-Firenze (A. Mugelli)
	March	-Ferrara (E. Wanke)
1983	Jan	-Geneve, Centre Med. Univ. (D. Bertrand, C. Bader)
	June	-Abano Terme, Fidia Res. Lab. (M. Prosdocimi)
	Sept	-Sidney, Invited Lecturer XXIX IUPS Congress
1984	March	-Clermont-Ferrand (Merck-Sharp & Dhome-Chibret)
	July	-Tours (D. Garnier)
	Sept	-Oklahoma City, Inv. Lecturer Symp. Int. Soc Heart Research (R. Lazzara)
	Sept	-Atlanta (L. DeFelice)
	Sept	-Baltimore (J. Lederer, T. Lakatta)
	Sept	-Stony Brook (I. Cohen)
	Sept	-New York, Columbia University (M. Rosen)
1985	Jan	-Napoli (T. De Leo)
	March	-Torino (E. Meda)
	Sept	-Pisa, Inv. Speaker SIF
1986	Aug	-Banff, Speaker Sat. Symposium IUPS Congress
	Aug	-New York, Columbia Univ
	Oct	-Vienna, Inv. Lecturer Symp. Boehringer Ingelheim
1987	May	-Rotterdam, Lecturer Symp. Pure Bradycardic Agents
	May	-Milano, CNR
	June	-Padova, (S. Luciani)
	June	-Poitiers, Committee Board Thesis Guy Champigny
	Oct	-San Diego, Inv. Lecturer Congress APS
1988	Apr	-Okazaki, Chairman Symp. US-Japan seminar

	Apr Oct Oct Oct Dic	-Tokio, Inv. Lecturer International Symposium Basic Mechanisms of Arrhythmias (H. Irisawa) -Padova, Inv. Lecturer Congress SIB -Spoleto, Inv. Lecturer Congress ABCD -Pasadena, (H. Lester) -London, Inv. Co-chairman, British Heart Foundation
1989	March May Sept Oct Dec	-Pavia, Conference Dottorato Fisiologia (Prof. Rindi) -Ann Arbor, Inv. Speaker Int. Soc. Heart Research -Homburg/Saar, Chairman Symp to honor W. Trautwein -Roma, Inv. Speaker Soc. Ital. Cardiologia -Poitiers, Committee Board thesis Patrick Bois
1990	Feb May May May July Aug Sept Sept Sept Oct	-Frankfurt, Inv. Speaker Symp. A.Thomae -New York, Columbia Univ. -Chicago, Inv. Speaker Symp. Ion channels heart and vasc. system (H. Fozzard) -Houston (A.M. Brown) -Farmington (A. Pappano) -New London, Inv. Speaker Gordon Conference Ionic Channels (H. Lester) -Firenze, Inv. Lecturer III Congr. Cell Biol. -Perugia, Inv. Speaker Congress SIF -Firenze, Inv. Speaker XVII Int. Congr. Electrocardiology -Islamorada, Florida, Inv. Speaker Hoffman Symp. (M. Rosen)
1991	April May July July Oct Dec	-Il Ciocco, Inv. Speaker NATO Workshop (M. Morad) -Roma, Un. Tor Vergata (S. Morante) -Prague, Inv. Speaker Regional Meeting IUPS (C. Hartzell) -Oxford, Inv. Speaker Symp. Cardiac Background Currents (D. Noble) -Erice, Inv. Lecturer Int. School Bioelectrochemistry -Milano, Inv. Lecturer Scuola Soc. It. Neuroscienze
1992	Feb March April May July Sept Sept Oct Nov Dec	-Pisa, (L. Maffei) -Seattle, WA (B. Hille, W. Crill) -San Diego, CA (K. Chien) -Padova, (S. Schiaffino) -Madrid, Inv. Speaker X Int. Congr. Cell Biology -Ferrara, Inv. Speaker meeting EWGCE -Naples, Inv. Speaker Nat. Congr. Pharmacology -Antwerpen (PP. van Bogaert) -Bologna (C. Rapisarda) -Vienna Inv. Lecturer Symposium Boehringer Ingelheim
1993	Jan Aug Aug Sept Oct	-Poitiers, Committee Board Thesis Jerome Petit-Jacques -Glasgow, Inv. Speaker XXXII IUPS Congress -Keystone, Colorado, Inv. Lecturer Symp. Cardiac Electrophysiology (Medtronic) -Milano, Inv. Speaker ABCD Congress -Poitiers, Inv. Lecturer "E. Corabœuf Jubilee"
1994	March June July Sept Sept	-Firenze, Lettura Magistrale Annuale Soc. Ital. Fisiologia -Montpellier (Sanofi Recherche) -Trento (R. Antolini) -Milano, DiBit (Neurobiology Course Open Univ.) -Palermo, Invited Speaker Congress SIBPA
1995	April June Sept Oct	-Versailles, Inv. Speaker Workshop on Bradycardic Agents and Cardiac Arrhythmias (Servier) -Trieste, SISSA (E. Cherubini) -Leuven, Symposium to honor E. Carmeliet -Bruxelles, Lecture for <i>Prof. Pierre Rijlant Prize</i> at Royal Academy of Medicine

	Oct Dec	-London, King's Coll, Symposium on Cyclic-nucleotide gated channels -New York, Columbia Un. (R. Robinson)
1996	June Nov	-Banff, Inv. Speaker Symp. in honour of Denis Noble -Banff, Inv. Speaker Conference AV node
1997	Jan June July	-Nice-Sophia Antipolis (M. Lazdunski) -Erice, Symposium Synaptic Communication (E. Cherubini) -St. Petersburg, Inv. speaker Symposium Cell Oscillators (A. Noma)
1998	Oct	-Jülich (B. Kaupp)
1999	March April Sept Sept Sept Sept	-Miami, 2 <sup>nd</sup> Workshop Cardiac rate inhibitors. (Servier) -Rome, Ph.D. school seminar (A. Trentalance) -Orsay, Inv. speaker E. Coraboeuf Symposium (R. Fishmeister) -Oxford, Session Chairman XXIII meeting EWGCCE (Denis Noble) -Hyeres, Inv. speaker Colloque Canaux Ioniques (S. Richard) -Rome, Inv. speaker Hodgkin Symposium
2000	Jan Oct	-Milano Dept. Pharmacology (A. Panerai) -Parma, Inv. speaker SIBPA Congress
2001	Feb July Sept. Nov	-New York, Columbia Un. (R. Robinson) -Paris, Inv. speaker 3 <sup>rd</sup> Workshop Cardiac rate inhibitors. (Servier) -Ancona, Inv. speaker Congresso SIF -Goettingen (D.W. Richter, E.Neher)
2002	July Sept Sept Sept	-Courbevois Paris seminar (Servier) -Berlin, Inv. speaker Eur. Soc. Cardiol. Congress 2002 -Leeds, Inv. speaker Physiol. Soc. meeting - Montpellier, Inv. chair EWGCCE 2002 meeting
2003	March March May June Aug Sept Dec Dec	-Courbevois Paris seminar (Servier) -Les Arcs, Inv. speaker European Winter Conference on Brain Research -Milano, Organizer Symposium to honor A. Ferroni -Strasbourg, Inv. speaker Heart Failure Congress ISHR 2003 -Vienna, Inv. speaker Eur. Soc. Cardiol. Congress 2003 -Erice, Inv. speaker 2nd L. & H. Fairberg Workshop Cardiac Engineering -Milano, Ph.D. School in Physics seminar (PF Bortignon) -Milano, Accademia dei Lincei (F. Clementi)
2004	Jan Aug Sept  Nov Dec	-Milano, Newron seminar -Sidney, Inv. speaker XVIII World Congress Intern. Soc. Heart Research -Montpellier, Inv. speaker Cardiac Cell. Electrophysiol: From funny currents to the current Physiome, Celebration for Denis Noble retirement -Napoli, Inv. speaker VI Convegno Nazionale INBB -Roma, Inv. speaker 65° Congresso Naz. Soc. Italiana Cardiologia
2005	Feb Apr June Sept Dec	-Milano, Newron Pharmaceutical (R.G. Fariello) -Roma, Istituto Dermopatico Immacolata (M. Capogrossi) -New York, Dept. Pharmacol. Columbia Univ. (R.B. Robinson) (no seminar) -Milano, CC Monzino (M. Pesce) -Neully sur Seine, Procoralan Meeting (Servier)
2006	Apr Apr June	-S. Francisco, Inv. speaker Exp. Biology meeting FASEB (S.Siegelbaum) -Athens, Inv. speaker Cardiology Update 2006 Evangelismos General Hospital -Milano, H San Raffaele (A. Malgaroli)
2007	Feb June Sept Sept Oct	-Darmstadt (G. Thiel) -Bologna, Inv. speaker XIX World Congress Intern. Soc. Heart Research -Manchester, Inv. speaker Cardiac Electrophysiolog. meeting (M. Boyett) -Antalya, Inv. speaker 5 <sup>th</sup> Fairberg workshop (S. Sideman) -Lugano, Inv. speaker Cardiocentro Ticino Cong Cardiac Frequency (T.Moccetti)
2008	Jan	-Vellore, India, Inv. speaker 6 <sup>th</sup> Winter Symp. Cardiov. Sciences

	Feb May June June July Oct Oct Oct Oct Nov Nov Dec	-Geneve, Hôpitaux Universitaires de Genève -Servier (B. Wagner) -Athens, Inv. speaker XXVIII Europ. Section Meeting ISHR -Paris, formal ceremony in the Coupole, Institut de France, to receive the Grand Prix Scientifique award from the Fondation Lefoulon-Delalande -Milano, Keynote Lecture Giornate del Gruppo Biologico -Sassari seminar Dip. Scienze Biomediche (L. Deiana) -New London, NH Inv. speaker Gordon Res. Conference Colby-Sawyer Cardiac Regulatory Mechanisms (D. Eisner, J. Lederer) -Imola XV Cong. Soc. Ital. Ric. Cardiovasc. (G. Losano) -Milano Inv. speaker Circolo della Stampa, Premio Galeno 2008 (R. Paoletti) -Roma Inv. speaker Giornate Ricerca Servier (B. Millet) -Venice Inv. speaker Multiple Risk Factors in CVD Venezia Lido (R. Paoletti) -St Louis, MO CBAC Seminar (Y. Rudy) -New Orleans Inv. speaker CES Annual Meeting -Milano, Lectio Magistralis Faculty of Science Univ. Milan
2009	Feb Feb March April May May May June June June Aug	-Paris Croissy, seminar Servier (L. Alliot) -Il Ciocco, chair session GRC Cardiac Arrhythmia Mechanisms (N. Trayanova) -Milano, Lecture Istituto Lombardo Accademia Scienze e Lettere -Padova, Lectio Magistralis and Prize Symp. "Translation in Cardiomyopathies: from genes to therapy" (G. Thiene) -Boston Inv. speaker Heart Rhythm 2009 Cong. (D. Packer) -Brescia, H.C. Burger Award Lecture "The history of the discovery of funny channels" 23rd Cong. Europ. Soc. Noninvasive Preventive Cardiol. "Cardiovascular Medicine in the Era of Advanced Technology" (C. Rusconi) -Paris Suresnes, seminar/talks Servier (J.-P. Vilaine) -Berlin, Inv. speaker Europace 2009 Cong. (J. Brugada) -Lousanne, Inv. lecturer Colloques Formation Continue, CHUV (Andres Jaussi, Servier Barbara Fritsche) -Kyoto, Inv. speaker 36° IUPS Cong. "Pacemaker mechanisms" (D. Eisner, D. Noble); organizer & speaker Luncheon Seminar (Servier) "Targeting funny channels for clinical applications" -Ovoda, Sardinia, Lecturer meeting "Studio comparativo della longevità di quattro comuni della Sardegna (Ovoda, Tiana, Erula e Perfugas) primi risultati demografici e genetici" (L. Deiana)
2010	Apr June	-Levico Terme, Inv. speaker Congress SICOA –Le aritmie nel III millennio -Nice, Inv. speaker Cardiostim 2010, 10th World Congr. Cardiac Arrhythmias
2011	Feb Oct Nov Nov Dec	-Milano Ist Besta (S. Franceschetti) -Venice, Inv. speaker 2011 Venice Arrhythmias Congress (Raviele, Natale) -Porto, Inv. speaker Reunião Anual Núcleo de Técnicos de Cardiologia da SPC (Medtronic) -Roma, Inv. speaker Advances in Cardiac Electrophysiology (Calò) -Roma, Inv. speaker Soc Ital Cardiol
2012	May May June Sept	-Milano, Lecture Istituto Lombardo Accademia Scienze e Lettere -Boston, Inv. speaker Heart Rhythm 33rd Annual Sci Sessions -Paris Suresnes, Servier seminar (J.-P. Vilaine) -Manchester, Inv. speaker Phys. Soc. Cardiac & Resp. Themed Meeting Cardiac Arrhythmias (H. Zhang)
2013	March May July July	-Pavia, Inv. Lecturer PhD School Collegio Borromeo (V. Ricci) -Montpellier, Inv. Lecturer Colloque du Patch-Club -Paris Suresnes, Servier seminar (J.-P. Vilaine, C. Thollon) -Birmingham, Inv. speaker XXXVII IUPS 2013 Congress (M. Boyett, H. Dobryznski)

	Sept Dec	-Ancona, Lectio Magistralis 64th Annual Congress Italian Soc. Physiology (SIF) -Benevento, Univ. del Sannio (F. Goglia)
2014	Feb	-Milano, Ist. Besta (M. DeCurtis)
	May	-San Francisco, Inv. Speaker Heart Rhythm 2014 Congress
	Sept	-Maastricht, Inv. Lecturer 39th meeting EWGCCE
	Oct	-Tianjin, China, The second Hospital of Tianjin Medical University, seminar (Prof. Li Guangpin)
	Oct	-Tianjin, China, Tianjin Medical University, seminar (Prof. Tian)
	Oct	-Tianjin, China, Le Ren Tang drug company, Tianjin Zhongxin Pharmaceutical Group Co., Ltd., seminar
	Nov	-Milano, Inv. Lecturer School Medicine Univ. Milano-Polo San Paolo (L. Imeri)
2015	Feb	-Magnes Prize seminar Be'er Sheva, Israel (Bernard Attali, Israel)
	Feb	-2014 Magnes Prize Lecture award, Israel Society for Physiology and Pharmacology, Hadassah Ein Kerem, Jerusalem, Israel (Alexander Binshtok)
	March	-The 350th Anniversary of the Royal Society of London- Celebration of DiFrancesco & Noble (1985) paper
	March	-Milano, Dept of Pharmacology Seminar (A. Panerai)
	May	-Milano, Dept Biosciences Lectio Magistralis "How funny to peek into the history of science", on occasion of Royal Society celebration
	June	-Milano, Inv. speaker EHRA Europace Cardiostim 2015 congress
	July	-Tianjin, China, invited lecturer Bioeconomy 2015 Congress, Tianjin Univ. Traditional Chinese Medicine
	Oct	-Milano, seminar International Medical School Univ. Milano (G. Cerri)
	Nov	-Rome, Inv. lecturer PLACE 2015 Congress (R. Cappato, L. Calò)
2016	Jan	-Pavia, Collegio Ghislieri Conference
	Apr	-Parma, Dip. Bioscienze University of Parma (Emilio Macchi)
2017	March	-Genova, Italian Institute of Technology seminar (F. Benfenati)
	June	-Malta, Inv. speaker Mediterranean Neuroscience Society 6th Conference 2017
	June	-Vienna, Carmeliet-Corabœuf-Weidmann Prize Lecturer 41st EWGCCE Meeting
	Sept	-Pécs, Hungary, IV Europ Sect Meeting International Academy of Cardiovascular Sciences (András Varró)
	Nov	-Rome, Inv. lecturer PLACE 2017 Congress (L. Calò)
	Dec	-Cesena (Alma Mater Studiorum Bologna), seminar School of Engineering and Architecture (S. Severi)
2018	May	-Copenhagen Ion Channel Symposium Danish Royal Academy (N. Schmitt)
	June	-Padova, Inv. lecturer Dott. Ricerca Med. Specialistica "G.B.Morgagni" (G. Thiene)
	Nov	-Freiburg, Inv. lecturer Inst Exp Cardiov Med Universitäts-Herzzentrum (P. Kohl)
2019	May	-Bari, Inv. lecturer SIF 23 <sup>rd</sup> School of Physiology to honor M. Svelto (G. Calamita)
	June	-Milano, Celebration Symposium "A funny journey on the waves of the heart"
	Aug	-Paris, Chair ESC 2019 Congress symposium "What makes your heart beat"
	Sept	-Bologna, Federation European Physiological Societies-SIF Congress Chair Symposium Cardiov. Physiol. Genetic and epigenetic control of cardiac rhythm
	Nov	-Rome, PLACE Congress 2019 Chair Symposium on iPS cells
2020	Feb	-Milano, seminar IBF-CNR
2021	March	-Manchester, (virtual) TARM Webinar, Division Cardiov.Sci. Univ. Manchester "The road to pacing". <a href="https://zoom.us/rec/share/MBvdTV4LerMvYKwxFdXPK9Jx8OqAoEVO8S_fzV Ihj3EuX2vidKmnmYDFIkvS-7Cu.0leG_Oe3CE6yopLm">https://zoom.us/rec/share/MBvdTV4LerMvYKwxFdXPK9Jx8OqAoEVO8S_fzV Ihj3EuX2vidKmnmYDFIkvS-7Cu.0leG_Oe3CE6yopLm</a>
2022	Feb	- Münster, 3 <sup>rd</sup> Chembion Symposium (online) Westfälische Wilhelms-University, Lecture 'Funny current/HCN channels in health and disease: a 40-year journey' -- <a href="https://www.uni-muenster.de/ChemBion/Events/chembionseminar/index.html">https://www.uni-muenster.de/ChemBion/Events/chembionseminar/index.html</a> --

	Apr	-Maastricht, Cardiovascular Grand Rounds Maastricht (CGRM) Lecture: “Current Contentions in Cardiac Pacemaking” CARIM- Cardiovascular Research Institute Maastricht- School for Cardiovascular Diseases, Maastricht Univ. (Paul Volders)
	June	-Bari, Inv. Lecturer 56 <sup>th</sup> Meeting European Society for Clinical Investigation (ESCI) (G. Calamita) “Funny channel block by ivabradine: molecular views of cardiac therapies”
	Nov	-Columbus, Ohio, meeting Leducq FANTASY network
	Dec	-Paris Univ. Paris-Saclay, Inv. speaker A long journey in cardiovascular research: Old friends, new ideas- Tribute to Rodolphe Fischmeister
2023	Sept	-Darmstadt, Inv. speaker Int. Symp. “Understanding and building ion channels” Tribute to Gerhard Thiel
	Sept	-Ancona, Inv. Lecturer 3 <sup>rd</sup> MaSBIC Symp. “Advances in protein science: exploring structure, function and beyond”
2024	May	-Stony Brook Inv. speaker Symposium “Honoring the scientific achievements of Ira S. Cohen, Md., PhD”- Short visit to Columbia University, Manhattan, NY (Bina Santoro, Steve Siegelbaum)
	Oct	-Tutzing, Germany, “Special Lecture” 2024 Beacon IUPS Meeting “Rhythmic activity and its disorders in muscle and brain”