Curriculum Vitae

Photo

Prof. Ciro Indolfi, MD

Nominating Committee members: to represent the Societies

Personal Information:

Place and Date of Birth: Somma Vesuviana 16 April 1954

Nationality: ITALIAN

Current Position and Professional Address

Professor University of Calabria, Via Pietro Bucci 87036 Rende CS, Italy

Editor-in-Chief Journal of Cardiovascular Medicine.

Education and Postgraduate Training

From 1986 to 1987 Prof. Indolfi was assistant at the Division of Cardiology University of California, La Jolla, USA, directed by Dr. John Ross Jr., where he did milestones studies of flow-function relationship and on adrenergic stimulation of the heart. Prof. Indolfi was assistant professor at the Federico II University under the direction of Prof. Massimo Chiariello. He was President of the Italian Society of Invasive Cardiology (GISE), President of FINSIC and then President of the Italian Society of Cardiology (SIC), President of the ethical committee. He was director of the Master of II° in Echocardiography of the University Magna Graecia and director of Master in invasive cardiology (2013) and Master on Interventional Cardiology, UNICAL 2026.

European Society of Cardiology Activities

Prof. Indolfi was member of the Board of Minimal Data Setting of the European Cardiology Society. He was nominated FESC. He participated to the 2005-Guidelines for Coronary angioplasty of the ESC and to 2017-ESC Guideline on valvular heart disease.

Prof. Indolfi participated to ESC meeting program and as President of Italian Federation of Cardiology he was very active in realizing in cooperation with the ESC, the first **strategic plan of cardiovascular health in Italy**, under the guidance of the **ADVOCAY ESC** program. Prof. Indolfi sent letters to the minister of Health and to the Minister of Economy together with Prof. Luscher, to support the strategic plan on cardiovascular health of the European Society of Cardiology.

Participation in Other International Scientific Committees

Fellow of the American College of Cardiology.

Invited lecture to ESC, Japanese Heart Association, AHA and ACC.

Editorial Boards

Editor-in-Chief Journal of Cardiovascular Medicine.

Prof. Indolfi is in the list of the TIS (top Italian Scientist) and he is a reviewer for several international journals such as Circulation, Circulation Research, Nature Medicine, Journal of American College of Cardiology, Basic Research in Cardiology (Editorial Board), IHJ, Circulation Journal (Associate Editor), Journal of Clinical Investigation.

Leadership and Management Experience

In 2000 he created ex-novo the Division of Cardiology of the Magna Graecia University of Catanzaro, which became a leader in Italy in the field of coronary interventional cardiology, valves and cardiac arrhythmias. Prof. Indolfi organized the first public center in Calabria for the treatment of myocardial infarction with coronary angioplasty. He introduced TAVI in the Calabria Region in 2009.

Fellowships and Honours

Fellow of European Society of Cardiology, Gise and American College of Cardiology.

Honorary Memberships

On April 25, 2006 was honorary awarded by the President of Italian Republic with the title of Officer of the Italian Republic for his scientific achievement.

ements. ## Top 10 Most Relevant Publications

1. **Indolfi C,** Guth BD, Miura T, Miyazaki S, Schulz R, Ross J Jr. Mechanisms of improved ischemic regional dysfunction by bradycardia. Studies on UL-FS 49 in swine. ***Circulation***. 1989 Oct;80(4):983-93. doi: 10.1161/01.cir.80.4.983.
2. **Indolfi C,** Ross J Jr. The role of heart rate in myocardial ischemia and infarction: implications of myocardial perfusion-contraction matching. ***Prog Cardiovasc Dis***. 1993 Jul-Aug;36(1):61-74.
3. **Indolfi C,** Di Lorenzo E, Perrino C, Stingone AM, Curcio A, Torella D, Cittadini A, Cardone L, Coppola C, Cavuto L, Arcucci O, Sacca L, Avvedimento EV, Chiariello M. Hydroxymethylglutaryl coenzyme A reductase inhibitor simvastatin prevents cardiac hypertrophy induced by pressure overload and inhibits p21ras activation. ***Circulation***. 2002 Oct 15;106(16):2118-24.
4. **C Indolfi** , M Chiariello, E V Avvedimento Selective gene therapy for proliferative disorders: sense and antisense. **Nature Medicine** 1996 Jun;2(6):634-5.
5. **Indolfi C,** Esposito G, Di Lorenzo E, Rapacciuolo A, Feliciello A, Porcellini A, Avvedimento VE, Condorelli M, Chiariello M. Smooth muscle cell proliferation is proportional to the degree of balloon injury in a rat model of angioplasty. ***Circulation***, 1995 Sep 1;92(5):1230-5.

6. **Indolfi C,** Avvedimento EV, Rapacciuolo A, Di Lorenzo E, Esposito G, Stabile E, Feliciello A, Mele E, Giuliano P, Condorelli G. Inhibition of cellular ras prevents smooth muscle cell proliferation after vascular injury in vivo. al. ***Nature Medicine.*** 1995 Jun;1(6):541-5.
7. **Indolfi C**, Avvedimento EV, Di Lorenzo E, Esposito G, Rapacciuolo A, Giuliano P, Grieco D, Cavuto L, Stingone AM, Ciullo I, Condorelli G, Chiariello M Activation of cAMP-PKA signaling in vivo inhibits smooth muscle cell proliferation induced by vascular injury. **Nature Medicine**. 1997 Jul;3(7):775-9.
8. **Indolfi C**, Stabile E, Coppola C, Gallo A, Perrino C, Allevato G, Cavuto L, Torella D, Di Lorenzo E, Troncone G, Feliciello A, Avvedimento E, Chiariello M. Membrane-bound protein kinase A inhibits smooth muscle cell proliferation in vitro and in vivo by amplifying cAMP-protein kinase A signals. **Circulation Research.** 2001 Feb 16;88(3):319-24.
9. Choi J, Kim J, Spaccarotella C, Esposito G, Oh IY, Cho Y, **Indolfi C.** Smartwatch ECG and artificial intelligence in detecting acute coronary syndrome compared to traditional 12-lead ECG. Int J Cardiol Heart Vasc. 2024
10. Spaccarotella CAM, Polimeni A, Migliarino S, Principe E, Curcio A, Mongiardo A, Sorrentino S, De Rosa S, **Indolfi C.** Multichannel Electrocardiograms Obtained by a Smartwatch for the Diagnosis of ST-Segment Changes. JAMA Cardiol. 2020 Oct 1;5(10):1176-1180.

Major Research Interest

H-Index (scopus) 68, Citaions 33.000. Relationship between coronary flow and left ventricular function during ischemia. These studies, carried out in the United States, have established the fundamental importance of the subendocardial flow, and not of the subendocardial flow, in determining the level of left ventricular function during ischemia. These studies have created the conceptual framework for identifying the fundamental mechanisms of myocardial ischemia and for the use of specific pharmacological strategies such as beta-blockers (Indolfi, Ross, Circulation, Indolfi & Ross Am J Physiol). Role of the sympathetic system and coronary alpha-adrenergic receptors. The role of the sympathetic nervous system and alpha-adrenergic receptors on coronary flow have been studied in humans. The presence of alpha2 adrenergic receptors, which, when stimulated, cause vasoconstriction, has been demonstrated for the first time (Indolfi Circulation, Indolfi, Circulation).

He also demonstrated the role of sympathetic stimulation after coronary angioplasty. Vascular Biology. Since 1990, Prof. Indolfi has studied the fundamental mechanisms of stent restenosis and thrombosis. He has studied the role of smooth muscle cell proliferation in the process of restenosis after angioplasty/stenting both in vitro and in animal models in vivo. Prof. Indolfi has organized a standardized and reproducible laboratory for animal models of vascular injury with carotid balloon catheter. In Prof. Indolfi has studied the transmission of intracellular signal from the membrane to the nucleus of smooth muscle cells and in particular the pathway of ras proteins and the cAMP-PKA dependent signal (Indolfi, Nature Medicine 1995, Indolfi Nature Medicine 1996, Indolfi, Nature Medicine 1997). The results of these and other studies have provided the conceptual framework for the introduction of drug-eluting stents to reduce post-stent smooth muscle cell proliferation and clinical restenosis.

The latest studies published in prestigious journals (Circulation, Circulation Research, Nature Cardiology Review) have demonstrated the role of some micro RNAs in the formation of vascular stenosis and thrombosis. Finally, in 2017, Prof. Indolfi was one of the co-authors of the Define-Flair study published in the New England Journal of Medicine, which demonstrated the validity of measuring the trans-stenotic diastolic gradient in predicting major cardiovascular events in humans. Currently, Prof. Indolfi's research line is focused on the application of **artificial intelligence** in cardiology, and in particular on the diagnosis of acute coronary syndrome by combining the ECG performed by a smartwatch with artificial intelligence programs.