

## GIUSEPPE AMBROSIO, M.D., PH.D

**Citizenship:** Italian  
**Social Security:** 214-06-\*\*\*\* (U.S.A.)

### CURRENT ACADEMIC POSITIONS

Professor of Cardiology  
Director  
Division of Cardiology  
University of Perugia School of Medicine

Medical Director  
University of Perugia School of Medicine  
Ospedale Silvestrini

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Visiting Associate Professor  
Division of Cardiology  
Johns Hopkins School of Medicine  
Baltimore, MD, U.S.A.

Profesor Honorario  
Instituto de Cardiologia “Alberto C. Taquini”  
University of Buenos Aires  
Buenos Aires, Argentina

Research Coordinator  
Cardiovascular Department  
S. Maria Hospital  
Terni, Italy

- Over 170 papers in peer-reviewed journals
- Over 7,000 citations in international literature
- Impact Factor = 1025; H-Index = 44
- Over 70 invited lectures and seminars at International meetings

Formal Collaboration Agreements set in place with:

- Division of Cardiology, Johns Hopkins School of Medicine, Baltimore, MD, U.S.A.
- Instituto de Cardiologia “Alberto C. Taquini”, University of Buenos Aires, Buenos Aires, Argentina
- D.M. Davis Heart & Lung Research Institute, Ohio State University, Columbus, Ohio, U.S.A.

## **MEDICAL EDUCATION**

- M.D. degree, "summa cum laude" and publishing honors, University of Naples School of Medicine, Naples, Italy
- Ph.D. degree in Cardiovascular Pathophysiology, University of Naples

## **TRAINING**

- Intern, University Hospital, Naples
- Resident, Department of Cardiology, University Hospital, Naples
- Fellow, Division of Cardiology, Johns Hopkins Hospital, Baltimore, MD, U.S.A.

## **BOARD CERTIFICATIONS**

- Unrestricted Licence to practice Medicine and Surgery in Italy and all Countries of the European Community
- Italian Board Certification in Cardiology
- ECFMG Certification (U.S.A.)
- VQE Certification (National Board of Medical Examiners, U.S.A.; #324-946-3)

## **PROFESSIONAL APPOINTMENTS**

- European Society of Cardiology:  
Secretary, Science Council (1999 - 2002); Representative, Cluster on "Circulation" (1999 - 2002); Chairman, Working Group on "Coronary Pathophysiology and Microcirculation" (1996 - 1998); Member, Task Force "National Society Journals" (2006 - )
- Heart Failure Association – European Society of Cardiology:  
Member, Committee on Heart Failure with Preserved Ejection Fraction (2008 - ); Member, Committee on Acute Heart Failure (2010 - )
- American College of Cardiology  
Member, Committee on Prevention of Cardiovascular Disease (2011 - )
- Italian Society of Cardiology:  
Member of the Board (1998 – 2001); Member, Scientific Committee (2009 - )
- Member of the Board:  
-International Society for Heart Research (1998 - 2004)  
-International Academy of Cardiovascular Sciences (1998 – 2002)  
-Italian Society for Cardiovascular Research (1996 – 2003)
- Editor:  
- Italian Heart Journal (official journal of the Italian Federation of Cardiology) (2002 - 2005)  
- Giornale Italiano di Cardiologia (official journal of the Italian Federation of Cardiology) (2006

- 2007)
- Member, Heart Editors' Active Round Table (HEART) (2003 - 2007)
- Member, Task Force "National Society Journals", European Society of Cardiology (2006 - )
- Member of the Editorial Board
  - Acute Cardiac Care (2006 - )
  - Cardiovascular Drugs and Therapy (1990 - 2000)
  - Cardiovascular Research (1996 - )
  - Clinical Hemorheology and Microcirculation (2000 - )
  - European Heart Journal (2009 - )
  - Experimental and Clinical Cardiology (1995 - 2005)
  - HeartDrug (1999 - )
  - Heart International (2005 - )
  - High Blood Pressure and Cardiovascular Prevention (2003 - )
  - Journal of Molecular and Cellular Cardiology (1997 - 2000)
  - Netherlands Heart Journal (2005 - )
  - Revista Española de Cardiología (2000 - )
  - Revista Portuguesa de Cardiología (2006 - )
- Fellow
  - American College of Cardiology
  - European Society of Cardiology
  - American Heart Association: Council on Circulation, Council on Basic Cardiovascular Sciences

#### **RESEARCH INTERESTS**

- Acute coronary syndromes
- Chronic Ischemic heart disease
- Ischemia/reperfusion injury
- No-reflow, neutrophil activation
- Microcirculation
- Myocardial Stunning and Myocardial Hibernation
- Oxidative Stress
- Heart Failure

#### **INTERNATIONAL RESEARCH GRANTS**

- Global Registry of Acute Coronary Events (GRACE), University of Massachusetts, U.S.A. (2000 - 2009)
- Program Project Grant "Inflammation and Repair in Cardiac Ischemia-Reperfusion", National Institutes of Health, U.S.A., Grant Number: NIH P01 HL065608 (2004 - )
- MEDIA (Metabolic Road to Diastolic Dysfunction), FP VII, European Community (2010 - )

#### **CLINICAL AND PHARMACOLOGICAL RESEARCH ACTIVITIES**

- National Coordinator, **ACUITY** (Acute Catheterization and Urgent Intervention Triage Strategy) trial
- Event Adjudication Committee, **ZEN** trial

- Scientific Committee Member, **PROMISE HEART** (Prevalence of abdominal obesity and metabolic syndrome in coronary heart disease) study
- Steering Committee Member, and National Coordinator, **TRACER** (Thrombin Receptor Antagonist Coronary Event Reduction) trial
- Coordinator, Adjudication Committee, **Italian Elderly ACS** Study
- Writing Committee, **THE BALANCE** (Treatment of Hyponatremia Based on Lixivaptan in NYHA Class III/IV Cardiac Patient Evaluation) trial
- Steering Committee Member, **RED-CABG** Trial (Reduction in Cardiovascular Events by AcaDesine in Patients Undergoing CABG)
- Steering Committee Member, **ELEVATE** (Early LEvosimendan Vs usual care in Advanced chronic hearT failurE) trial
- Operations Committee Member, and National Lead, **TECOS** (Trial Evaluating Cardiovascular Outcomes with Sitagliptin in patients with Type 2 Diabetes) trial

#### ADVISORY BOARDS AND EXPERT PANELS

- Losartan Advisory Board, Merck Sharp & Dohme, Italy
- Expert Group on Microcirculation, Servier SA, France
- Thrombin Receptor Antagonist, Schering Plough Research Institute, USA
- Coordinator, Data Safety Monitoring Board, studio SMILE IV, Menarini International
- Ranolazine Advisory Board, Menarini International

#### SELECTED PUBLICATIONS

Tricoci P, et al. **Thrombin-Receptor Antagonist Vorapaxar in Acute Coronary Syndromes**  
New England Journal of Medicine 366:20-33, 2012

Carluccio E, et al. **Presence of Extensive LV Remodeling Limits the Benefits of CRT in Patients With Intraventricular Dyssynchrony**

JACC – Cardiovascular Imaging. 4, 1067–76, 2011

Accompanying Editorial: Exner DK: Predicting Benefit From CRT: When Is it Too Little, Too Late?  
JACC – Cardiovascular Imaging. 4, 1077-1079, 2011

Reboldi G, et al. **Effects of intensive blood pressure reduction on myocardial infarction and stroke in diabetes: a meta-analysis in 73 913 patients**

Journal of Hypertension 29:1253–1269, 2011

Accompanying Editorial: Lv J, Perkovic V: Blood pressure management in diabetes: a path forward?  
Journal of Hypertension 29:1283–1284, 2011

Ambrosio G, et al.  **$\beta$ -blockade with nebivolol for prevention of acute ischaemic events in elderly patients with heart failure**

Heart 97:209-214, 2011

Carluccio E, et al. **Advantages of deformation indices over systolic velocities in assessment of longitudinal systolic function in patients with heart failure and normal ejection fraction**  
European Journal of Heart Failure 13:292-302, 2011

Ambrosio G, et al. **Impact of chronic antiplatelet therapy before hospitalization on ischemic and bleeding events in invasively managed patients with acute coronary syndromes: the ACUITY trial**  
European Journal of Cardiovascular Prevention and Rehabilitation 18:121–128, 2011

Raman SV, et al. **Cardiac Magnetic Resonance With Edema Imaging Identifies Myocardium at Risk and Predicts Worse Outcome in Patients With Non–ST-Segment Elevation Acute Coronary Syndrome**  
Journal of the American College of Cardiology 55:2480–8, 2010.

Accompanying Editorial: Klocke FJ: Cardiac Magnetic Resonance Measurements of Area at Risk and Infarct Size in Ischemic Syndromes, Journal of the American College of Cardiology 55:2489–90, 2010

Ambrosio G, et al. **Chronic Nitrate Therapy is Associated with Different Presentation and Evolution of Acute Coronary Syndromes: Insights from 52,693 Patients in the Global Registry of Acute Coronary Events (GRACE)**  
European Heart Journal 31:430-8, 2010

Monaco M, et al. **Systematic strategy of prophylactic coronary angiography improves long-term outcome after major vascular surgery in medium- to high-risk patients: a prospective, randomized study.**

Journal of the American College of Cardiology 54:989-96, 2009.

Accompanying Editorial: Landesberg G, Mosseri M: “Prophylactic pre-operative coronary revascularization: is the Phoenix awakening?”, Journal of the American College of Cardiology 54:996-998, 2009.

Carluccio E, et al. **Effect of revascularizing viable myocardium on left ventricular diastolic function in patients with ischaemic cardiomyopathy.**  
European Heart Journal 30:1501-9, 2009

Moreo A, et al. **Influence of myocardial fibrosis on left ventricular diastolic function: Noninvasive assessment by cardiac magnetic resonance and echo.**  
Circulation - Cardiovascular Imaging 2:437, 2009

Guerri-Guttenberg RA, et al. **Chagas cardiomyopathy: Europe is not spared!**  
European Heart Journal 29:2587-91, 2008

Pries AR, et al. **A review of methods for assessment of coronary microvascular disease in both clinical and experimental settings.**  
Cardiovascular Research 80:165-74, 2008

Stassano P, et al. **Myocardial revascularization by left ventricular assisted beating heart is associated with reduced systemic inflammatory response.**  
Annals of Thoracic Surgery 87:46-52, 2009.

Accompanying Editorial: Jeppsson A: "Invited Commentary", Annals of Thoracic Surgery 87:52-53, 2009.

Dumitrescu C, et al. **Myocardial ischemia results in tetrahydrobiopterin (BH4) oxidation with impaired endothelial function ameliorated by BH4.**  
PNAS (Proceedings of the National Academy of Science, USA) 104:15081-15086, 2007

Milei J, et al. **Relationship among oxidative stress, lipid peroxidation, and ultrastructural damage in patients with coronary artery disease undergoing cardioplegic arrest/reperfusion.**

Cardiovascular Research 73:710-719, 2007.

Accompanying Editorial: Chambers DJ: "Oxidative stress injury during cardiac surgery: how important is it?" Cardiovascular Research 73:626-629, 2007.

Biondi R, et al. **Hydroxylation of D-Phenylalanine as a novel approach to detect hydroxyl radicals: Application to cardiac pathophysiology**

Cardiovascular Research 71:322-330, 2006.

De Palma R, et al. **Patients with acute coronary syndrome show oligoclonal T-cell recruitment within unstable plaque: Evidence for a local, intracoronary immunological mechanism**

Circulation 113:640-646, 2006.

Carluccio E, et al. **Patients with hibernating myocardium show altered left ventricular volumes and shape, which revert following revascularization: Evidence that dyssynergy may directly induce cardiac remodeling**

Journal of the American College of Cardiology 47:969-977, 2006.

Milei J, et al. **Ultrastructural evidence of increased tolerance of hibernating myocardium to cardioplegic ischemia-reperfusion injury**

Journal of the American College of Cardiology 43:2329-36, 2004.

Accompanying Editorial: Rahimtoola SH, et al. "Hibernating myocardium: another piece of the puzzle falls into place". Journal of the American College of Cardiology 47:978-90, 2006

Milei J, et al. **Ultrastructural evidence of increased tolerance of hibernating myocardium to cardioplegic ischemia-reperfusion injury**

Journal of the American College of Cardiology 43:2329-36, 2004.

Verdecchia P, et al. **Risk of cardiovascular disease in relation to achieved office and ambulatory blood pressure control in treated hypertensive subjects**

Journal of the American College of Cardiology 39:878-885, 2002.

Verdecchia P, et al. **Left ventricular hypertrophy as an independent predictor of acute cerebrovascular events in essential hypertension**

Circulation 104:2039-2044, 2001.

*Times cited = 155*

Levy BI, et al. **The microcirculation in hypertension: A new target for treatment?**

Circulation 104:735-740, 2001.

*Times cited = 245*

Duilio C, et al. **Neutrophils are primary source of O<sub>2</sub> radicals during reperfusion after prolonged myocardial ischemia**

American Journal of Physiology, Heart and Circulatory Physiology 280:H2649-57, 2001. *Times cited = 145*

Napoli C, et al. **New-onset angina preceding acute myocardial infarction is associated with improved contractile recovery after thrombolysis**

European Heart Journal 19:411-419, 1998.

Accompanying Editorial: Dana AM and Yellon D. "Cardioprotection by pre-infarct angina: is it ischaemic preconditioning?" European Heart Journal 19:367-369, 1998.

Tritto I, et al. **Oxygen radicals can induce preconditioning in rabbit hearts**

Circulation Research 80:743, 1997.

*Times cited = 198*

Ambrosio G, et al. **Prolonged impairment of regional contractile function after resolution of exercise-induced angina: Evidence of myocardial stunning in patients with coronary artery disease**

Circulation 94:2455, 1996.

*Times cited = 154*

Golino P, et al. **Effects of Tissue Factor induced by oxygen free radicals on coronary flow during reperfusion**

Nature Medicine 2:35, 1996.

*Times cited = 125*

Ambrosio G, et al. **Oxygen radicals inactivate human plasma acetylhydrolase, the enzyme that catabolizes platelet-activating factor**

Journal of Clinical Investigation 93:2408, 1994.

*Times cited = 110*

Ambrosio G, et al. **Evidence that mitochondrial respiration is a source of potentially toxic oxygen free radicals in intact rabbit hearts subjected to ischemia and reflow**

Journal of Biological Chemistry 268:18532, 1993.

*Times cited = 302*

Golino P, et al. **Endothelium-derived relaxing factor modulates platelet aggregation in an in vivo model of recurrent platelet activation**

Circulation Research 71:1447, 1992.

Ambrosio G, et al. **Oxygen radicals generated at reflow induce peroxidation of membrane lipids in reperfused hearts**

Journal of Clinical Investigation 87:2056, 1991.

*Times cited = 189*

Ambrosio G, et al. **Progressive impairment of regional myocardial perfusion following initial restoration of post-ischemic blood flow**

Circulation 80:1846, 1989.

*Times cited = 331*

Becker LC, Ambrosio G. **Myocardial consequences of reperfusion.**

Progress in Cardiovascular Disease 30:23, 1987.

*Times cited = 205*

Ambrosio G, et al. **Improvement of post-ischemic myocardial function and metabolism by administration of deferoxamine at the time of reflow: The role of iron in the pathogenesis of reperfusion injury**

Circulation 76:906, 1987.

*Times cited = 220*

Ambrosio G, **Preserved high energy phosphate metabolic reserve in globally "stunned" hearts despite reduction of basal ATP content and contractility**

Journal of Molecular and Cellular Cardiology 19:953, 1987.

*Times cited = 119*

Ambrosio G, et al. **Evidence for a reversible, oxygen radical mediated component of reperfusion damage: Reduction by recombinant human superoxide dismutase administered at the time of reflow**

Circulation 75:282, 1987.

*Times cited = 277*

Ambrosio G, et al. **Reduction in experimental infarct size by recombinant human superoxide dismutase: Insights into the pathophysiology of reperfusion injury**

Circulation 74:1424, 1986.

*Times cited = 372*