

Alberto Ranieri De Caterina

CURRICULUM VITAE

**Date of
preparation**

September 2020

Name

Alberto Ranieri

Surname

De Caterina

Resident address

Current work address

Ospedale del Cuore
Fondazione Toscana “G.Monasterio”
Via Aurelia Sud
Loc. Montepepe
Massa
Italy

City of birth

Birth date

Marital status

Education

- 2000** High School in Classical Studies, Lucca, Italy
Final graduation marks: 100/100
- 2000-2007** Sant'Anna Advanced Postgraduate University School
Pisa, Italy
- 2003
(August-September)** Internship at Cellular and Molecular Biology Laboratories
University of Texas and Texas Heart Institute,
Texas Medical Center, Houston, TX, USA
- 2004-2006** Clinical and Research Internship at the Institute of Clinical
Physiology, Pisa, Italy
- 2005** Basic Life Support and Defibrillation Healthcare Provider Course
Final marks 98/100
- 2006** Basic Life Support and Defibrillation Instructor Course
Final marks: 98/100
- 2006:** Medical Degree
School of Medicine
University of Pisa, Italy
Final graduation marks 110/110 cum laude
- 2007** Medical Degree
Sant'Anna Advanced Postgraduate University School
Pisa, Italy
- 2007-2011** Residency in Cardiology,
Institute of Cardiology,
Policlinic "A. Gemelli"
Catholic University of the Sacred Heart, Rome, Italy
Final marks 50/50
- February-November
2011** International Clinical and Research Fellowship
Oxford Heart Center, John Radcliffe Hospital,
Oxford, UK

Specific skills

Proficient in Echocardiography

Experience in the assessment of angiogram analysis, such as the evaluation of TIMI flow, TIMI frame count, Myocardial Blush Grade, Quantitative Blush Evaluator (QuBE) software use, angiographic Jeopardy Score and 2d and 3d-QCA coronary lesion assessment

By May 2010 he participated to more than 3000 coronary angiograms, using both radial and femoral access (of which more than 2000 as first operator), more than 600 percutaneous coronary interventions, including IVUS, OCT or FFR-guided procedures, PFO closures, aortic valve valvuloplasty and TAVI procedures.

Mother language

Italian

Spoken languages

Advanced level: English, French
Basic level: German, Spanish

Scientific career

Speaker at several National and International Medical Congresses, including the Congresses of Italian Society of Cardiology, Italian Society of Interventional Cardiology, European Society of Cardiology and European Society of Interventional Cardiology.

Grant and prizes

1. Winner of 2011 Grant of Italian Society of Cardiology for supporting a clinical stage to an Italian cardiology Center
2. Winner of the first prize as “Best Cases from young Interventional Cardiologists”, XXXIII Congress of Italian Society of Interventional Cardiology, GISE, October 2012.
3. Winner of a 210000 Euros grant, Fondazione Lilly 2013 “La ricerca in Italia: un'idea per il Futuro” for the research project “Remote Ischemic conditioning to protect from ischemia-reperfusion injury in ST-elevation myocardial infarction”

Publications *in extenso*

1. Madonna R, Di Napoli P, Massaro M, Grilli A, Felaco M, **De Caterina A**, Daming T, De Caterina R, Geng YJ: Simvastatin attenuates expression of cytokine-inducible nitric oxide synthase in embryo cardiac myoblasts. *J Biol Chem* 2005; 280: 13503-13511
2. Neglia D, **De Caterina A**, Marraccini P, Natali A, Ciardetti M, Vecoli C, Gastaldelli A, Ciociaro D, Pellegrini P, Testa R, Menichetti L, L'Abbate A, Stanley WC, Recchia FA. Impaired myocardial metabolic reserve and substrate selection flexibility during stress in patients with idiopathic dilated cardiomyopathy. *Am J Physiol Heart Circ Physiol*. 2007;293(6): H3270-8.
3. Galiuto L, Giubilato S, **De Caterina AR**, Porfidia A, Colizzi C, Sestito A, Porto I, Trani C, Rebuzzi AG, Crea F. Patent foramen ovale and hypercoagulable state in the pathogenesis of acute thrombotic myocardial infarction. *BMJ Case Reports* 2009: bcr1120081211-bcr1120081215.
4. Galiuto L, **De Caterina AR**, Porfidia A, Paraggio L, Barchetta S, Locorotondo G, Rebuzzi AG, Crea F. Reversible coronary microvascular dysfunction: a common pathogenetic mechanism in Apical Ballooning or Tako-Tsubo Syndrome. *Eur Heart J*. 2010; 31: 1319-27
5. Galiuto L, Gabrielli FA, Lanza GA, Porfidia A, Paraggio L, Barchetta S, Locorotondo G, **De Caterina AR**, Rebuzzi AG, Crea F. Influence of left ventricular hypertrophy on microvascular dysfunction and left ventricular remodelling after acute myocardial infarction. *Eur J Echocardiogr*. 2010; 11: 677-82.
6. **De Caterina AR**, Leone AM. Why beta-blockers should not be used as first choice in uncomplicated hypertension. *Am J Cardiol*. 2010;105:1433-8.
7. Galiuto L, Paraggio L, Liuzzo G, **De Caterina AR**, Crea F. Predicting no-reflow phenomenon after successful percutaneous coronary intervention. *Biomarkers Med*. 2010; 4(3):403-20.
8. Biasucci LM, Graziani F, Rizzello V, Liuzzo G, Guidone C, **De Caterina AR**, Brugaletta S, Mingrone G, Crea F. Paradoxical preservation of vascular function in severe obesity. *Am J Med* 2010; 123: 727-34.
9. Leone AM, Giubilato S, **De Caterina AR**. Recanalization of a chronic total occlusion in ST-elevation myocardial infarction: why and when. *Interv Cardiol* 2010; 3: 427-433.
10. Leone AM, **De Caterina AR**. First line treatment for uncomplicated hypertension: time for a rethink. *Maturitas* 2011; 68:1-2.
11. **De Caterina AR**, Leone AM. The role of beta blockers as first line therapy in hypertension. *Curr Atheroscl Rep*. 2011; 13: 147-53.

12. Galiuto L, Paraggio L, Fedele E, **De Caterina AR**. Multiterritorial Reversible Coronary Microvascular Dysfunction as the Main Determinant of Tako- Tsubo Cardiomyopathy. *J Clin Experiment Cardiol* 2011; 2e102. doi:10.4172/2155- 9880.1000e102.
13. Leone AM, Sgueglia GA, Porto I, Niccoli G, Burzotta F, Trani C, **De Caterina AR**, Buffon A, Mazzari MA, Mongiardo R, Rebuzzi AG, Crea F. The CHrono CarbostEnt in Acute myocaRdial infarcTion (HEART) study: a real-world experience using the CID CHrono CarbostEnt in Primary and Rescue PCI. *J Cardiovasc Med (Hagerstown)*. 2010 Nov 10. [Epub ahead of print].
14. **De Caterina AR**, Galiuto L, Fedele E, Crea F. Microvascular dysfunction in the spectrum of coronary instability. *Am J Cardiol*; 2011 108: 1513-6
15. **De Caterina AR**, Porto I, Leone AM, Crea F. Angiographic versus functional assessment of coronary artery disease: a “proof of concept” case report. *Int J Cardiol* 2012 156(2):e30-2.
16. **De Caterina AR**, Porto I, De Maria GL, Banning AP. Prevention and treatment of coronary distal embolization in the setting of acute myocardial infarction: pharmacologic approach. *Curr Vasc Pharmacol*. 2012; 10: 463-7.
17. Galiuto L, Locorotondo G, Paraggio L, **De Caterina AR**, Leone AM, Fedele E, Barchetta S, Porto I, Natale L, Rebuzzi AG, Bonomo L, Crea F. Characterization of microvascular and myocardial damage within perfusion defect area at myocardial contrast echocardiography in the sub-acute phase of myocardial infarction. *Eur Heart J Cardiovasc Imaging*. 2012; 13: 174-80.
18. Cuculi F, **De Caterina AR**, Kharbanda RK, Banning AP. Optimal reperfusion in ST-elevation myocardial infarction: the crucial role of the coronary microcirculation. *Swiss Medical Weekly* 2011 9; 141:w13313.
19. Della Bona R, **De Caterina AR**, Leo M, Biasillo G, Basile E, Cialdella P, Gustapane M, Pedicino D, Camaioni C, Cardillo MT, De Paulis S, Biasucci LM. Statins reduce incidence of early perioperative complications and lenght of in-hospital stay after coronary artery bypass surgery. *J Clin Exp Cardiol* 2011; 2: 137. Doi: 10.4172/2155-9880.1000137.
20. Cuculi F, **De Caterina AR**, Banning AP. Large perfusion defect on scintigraphy explained by severe microcirculatory dysfunction. *J Invasive Cardiol*. 2011; 23: E247-8.
21. Galiuto L, Paraggio L, **De Caterina AR**, Fedele E, Locorotondo G, Leccisotti L, Giordano A, Rebuzzi AG, Crea F. Positron emission tomography in acute coronary syndromes. *J Cardiovasc Transl Res* 2012; 5: 11-21.
22. **De Caterina AR**, Leone AM, Crea F. Limitations of noninvasive measurement of fractional flow reserve from coronary computed tomography angiography. *J Am Coll Cardiol*. 2012;59:1408-9.

23. Leone AM, Porto I, **De Caterina AR**, Basile E, Aurelio A, Gardi A, Russo D, Laezza D, Niccoli G, Burzotta F, Trani C, Mazzari MA, Mongiardo R, Rebuzzi AG, Crea F. Maximal hyperemia in the assessment of fractional flow reserve: intracoronary adenosine versus intracoronary sodium nitroprusside versus intravenous adenosine: the NASCI (Nitroprussiato versus Adenosina nelle Stenosi Coronariche Intermedie) study. *JACC Cardiovasc Interv.* 2012; 5:402-8.
24. **De Caterina AR**, Harper AR, Cuculi F. Critical evaluation of the efficacy and tolerability of azilsartan. *Vasc Health Risk Manag.* 2012;8:299-305.
25. **De Caterina AR**, Cuculi F, Banning AP. Axial deformation during coronary stenting: an extreme case. *J Invasive Cardiol* 2012;24: E122-3.
26. Leone AM, **De Caterina AR**, Sciahbasi A, Aurelio A, Basile E, Porto I, Trani C, Burzotta F, Niccoli G, Mongiardo R, Mazzari MA, Buffon A, Panocchia N, Romagnoli E, Lioy E, Rebuzzi AG, Crea F. Sodium bicarbonate plus N-acetylcysteine to prevent contrast-induced nephropathy in primary and rescue percutaneous coronary intervention: the BINARIO (Bicarbonato e N-Acetyl-cisteina nell'infarto miocardico acuto) study (Clinical trials.gov NCT01218178). *Eurointervention.* 2012 ;8: 839-47.
27. Galiuto L, Barchetta S, Fedele E, **De Caterina AR**, Locorotondo G, Leone AM, Burzotta F, Niccoli G, Rebuzzi AG, Crea F. Effects of late REopening of Coronary total Occlusion on microvascular perfusion and myocardial dysfunction. *European Heart Journal Cardiovasc Imaging* 2013; 14: 487-94.
28. **De Caterina AR**, Cuculi F, Banning AP, Kharbanda RK. Protecting the heart: biological targets and clinical strategies. *Curr Pharm Des* 2012 (in press).
29. Leone AM, **De Caterina AR**, Basile E, Gardi A, Laezza D, Mazzari MA, Mongiardo R, Kharbanda R, Cuculi F, Porto I, Niccoli G, Burzotta F, Trani C, Banning AP, Rebuzzi AG, Crea F. Influence of the Amount of Myocardium Subtended by a Stenosis on Fractional Flow Reserve. *Circ Cardiovasc Interv.* 2013; 6: 29-36.
30. Palmieri C, Koni E, Trianni G, Ravani M, Rizza A, Vaghetti M, **De Caterina AR**, Berti S. Percutaneous coronary intervention in an anomalously-arising totally occluded circumflex coronary artery. *Cor et Vasa*, in press.
31. **De Caterina AR**, Cuculi F, Banning AP. Incidence, predictors and management of left main coronary artery stent restenosis: a comprehensive review in the era of drug-eluting stents. *Eurointervention* 2013, 11: 1326-34.
32. Cuculi F, **De Caterina AR**, Banning AP, Prendergast B, Forfar JP, Channon KM, Herring NH, Kharbanda RK. Neuropeptide Y and microcirculatory dysfunction in ST-elevation myocardial infarction. *Heart* 2013. Epub ahead of print.

33. Scalone G, **De Caterina A**, Leone AM, Tritarelli A, Mollor R, Pinnacchio G, D'mario D, Lanza GA, Crea F. Effect of exercise on circulating endothelial progenitor cells in microvascular angina. *Circ J* 2013 Epub ahead of print
34. **De Caterina AR**, Leone AM, Crea F. Letter to the Editor regarding the FIRST: Fractional Flow Reserve and Intravascular Ultrasound relationship study. *J Am Coll Cardiol* 2013 Epub ahead of print
35. **De Caterina AR**, Cuculi F, Banning AP. Intravascular ultrasound-guided revascularization of a chronically occluded left main coronary artery. *Indian Heart J* 2013; 65: 194-7.
36. Niccoli G, Rigattieri S, De Vita MR, Valgimigli M, Corvo P, Fabbicocchi F, Romagnoli E, **De Caterina AR**, La Torre G, Lo Schiavo P, Tarantino F, Ferrari R, Tomai F, Olivares P, Cosentino N, D'Amario D, Leone AM, Porto I, Burzotta F, Trani C, Crea F. Open-label, randomized, placebo-controlled evaluation of intracoronary adenosine or nitroprusside after thrombus aspiration during primary percutaneous coronary intervention for the prevention of microvascular obstruction in acute myocardial infarction: the REOPEN-AMI study (Intracoronary Nitroprusside Versus Adenosine in Acute Myocardial Infarction). *JACC Cardiovasc Interv.* 2013; 6: 580-9.
37. **De Caterina AR**, Leone AM, Galiuto L, Basile E, Fedele E, Paraggio L, De Maria GL, Porto I, Niccoli G, Burzotta F, Trani C, Rebuzzi AG, Crea F. Angiographic assessment of myocardial perfusion in Tako-Tsubo syndrome. *Int J Cardiol.* 2013; 168:4717-22.
38. Gaudino M, Pragliola C, Anselmi A, Pieroni M, De Paulis S, Leone A, De Caterina AR, Massetti M. Randomized trial of HTK versus warm blood cardioplegia for right ventricular protection in mitral surgery. *Scand Cardiovasc J.* 2013; 47:359-67.
39. Cuculi F, Dall'Armellina E, Manlhiot C, **De Caterina AR**, Colyer S, Ferreira V, Morovat A, Prendergast BD, Forfar JC, Alp NJ, Choudhury RP, Neubauer S, Channon KM, Banning AP, Kharbanda RK. Early change in invasive measures of microvascular function can predict myocardial recovery following PCI for ST-elevation myocardial infarction. *Eur Heart J.* 2014; 35: 1971-80.
40. Gianetti J, Parri MS, Della Pina F, Marchi F, Koni E, **De Caterina A**, Maffei S, Berti S. Von Willebrand factor antigen predicts response to double dose of aspirin and clopidogrel by PFA-100 in patients undergoing primary angioplasty for ST elevation myocardial infarction. *ScientificWorldJournal* 2013; 2013:313-492.
41. Leone AM, **De Caterina AR**, De Maria GL, Scalone G, Tagliaferro F, Gardi A, Clemente F, Laezza D, Basile E, Cialdella P, Aurigemma C, Porto I, Burzotta F, Niccoli G, Trani C, Rebuzzi AG, Banning AP, Crea F. Three-dimensional quantitative coronary angiography and quantification of jeopardised myocardium to predict functional significance of intermediate coronary artery stenosis. *EuroIntervention.* 2014. pii: 20130519-05. [Epub ahead of print]
42. Leone AM, Scalone G, De Maria GL, Tagliaferro F, Gardi A, Clemente F, Basile E, Cialdella P, **De Caterina AR**, Porto I, Aurigemma C, Burzotta F, Niccoli G, Trani C, Rebuzzi AG, Crea F. Efficacy of contrast medium induced Pd/Pa ratio in predicting functional significance of intermediate coronary artery stenosis assessed by fractional flow

reserve: insights from the RINASCI study. *EuroIntervention*. 2014 Jul 10. [Epub ahead of print]

43. Cuculi F, DeMaria GL, Meier P, Dall'Armellina E, **De Caterina AR**, Channon KM, Prendergast B, Choudhury R, Forfar JC, Kharbanda RK, Banning AP Impact of Microvascular Obstruction on the Assessment of Coronary Flow Reserve, Index of Microcirculatory Resistance, and Fractional Flow Reserve After ST-Segment Elevation Myocardial Infarction *J Am Coll Cardiol*. 2014;64: 1894-1904.
44. Marchi F, Cerillo AG, Rizza A, Mariani M, **De Caterina AR**, Palmieri C, Maffei S, Berti S.. Large Abdominal Aortic Aneurysm in a High-Risk Surgical Patient: Combined Percutaneous Transfemoral TAVI and EVAR Procedure. *J Heart Valve Dis*. 2015 May;24(3):310-23.
45. Pastormerlo LE, Ciardetti M, Coceani M, Trianni G, Ravani M, Vaghetti M, Rizza A, **De Caterina A**, Berti S, Palmieri C. Self-expanding stent for complex percutaneous coronary interventions: A real life experience. *Cardiovasc Revasc Med*. 2016 Apr-May;17(3):186-9.
46. Patti G, Pengo V, Marcucci R, Cirillo P, Renda G, Santilli F, Calabrò P, **De Caterina AR**, Cavallari I, Ricottini E, Parato VM, Zoppellaro G, Di Gioia G, Sedati P, Cicchitti V, Davì G, Golia E, Pariggiano I, Simeone P, Abbate R, Prisco D, Zimarino M, Sofi F, Andreotti F, De Caterina R; Working Group of Thrombosis of the Italian Society of Cardiology. The left atrial appendage: from embryology to prevention of thromboembolism. *Eur Heart J*. 2016
47. Berti S, Pastormerlo LE, Rezzaghi M, Trianni G, Paradossi U, Cerone E, Ravani M, **De Caterina AR**, Rizza A, Palmieri C. Left atrial appendage occlusion in high-risk patients with non-valvular atrial fibrillation. *Heart*. 2016 Dec 15;102(24):1969-1973.
48. Left atrial appendage closure using AMPLATZER™ devices: A large, multicenter, Italian registry. Berti S, Santoro G, Brscic E, Montorfano M, Vignali L, Danna P, Tondo C, D'Amico G, Stabile A, Saccà S, Patti G, Rapacciuolo A, Poli A, Golino P, Magnavacchi P, **De Caterina A**, Meucci F, Pezzulich B, Rezzaghi M, Stolcova M, Tarantini G. *Int J Cardiol*. 2017 ;248:103-107.
49. Mazzone A, Scalese M, Paradossi U, Del Turco S, Botto N, **De Caterina A**, Trianni G, Ravani M, Rizza A, Molinaro S, Palmieri C, Berti S, Basta G. Development and validation of a risk stratification score for new-onset atrial fibrillation in STEMI patients undergoing primary percutaneous coronary intervention. *Int J Clin Pract*. 2018; 72:e13087.
50. Pingitore A, Mastorci F, Piaggi P, Aquaro GD, Molinaro S, Ravani M, **De Caterina A**, Trianni G, Ndreu R, Berti S, Vassalle C, Iervasi G. Usefulness of Triiodothyronine Replacement Therapy in Patients With ST Elevation Myocardial Infarction and Borderline/Reduced Triiodothyronine Levels (from the THIRST Study). *Am J Cardiol*. 2019 ;123:905-912.
51. Rizza A, **De Caterina AR**, Murzi M, Farneti PA, Palmieri C, Berti S. Double Carotid-Subclavian Bypass Followed by Endovascular Exclusion of a Kommerell Diverticulum and Bilateral Subclavian Artery Occlusion in a Right-Sided Aortic Arch *JACC Cardiovasc Interv*. 2019; 12:e81-e82.
52. Del Turco S, Basta G, **De Caterina AR**, Sbrana S, Paradossi U, Taddei A, Trianni G, Ravani M, Palmieri C, Berti S, Mazzone A. Different inflammatory profile in young and

elderly STEMI patients undergoing primary percutaneous coronary intervention (PPCI): Its influence on no-reflow and mortality. *Int J Cardiol.* 2019; 290:34-39.