

Curriculum Vitae

Michele Ciccarelli

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EDUCATION AND TRAINING

	MONTH/YEAR	DEGREE/YR/SUBJECT
GRADUATE/PROFESSIONAL SCHOOL		
School of Medicine, "Federico II" University of Naples	September 1995- November 2001	MD, <i>cum laude</i> , 2001
GRADUATE MEDICAL EDUCATION		
School of Cardiology, "Federico II" University of Naples	October 2002 – October 2006	Cardiologist, <i>cum laude</i> , 2006
GRADUATE/PROFESSIONAL SCHOOL		
"Federico II" University of Naples	January 2007 – January 2010	PhD, 2010

POSTDOCTORAL FELLOWSHIP EXPERIENCE (for PhD's or MD/PhD's)

INSTITUTION	MONTH/YEAR
Laboratory of Prof Bruno Trimarco, "Federico II" University Naples, Italy Role of the endothelial border in development of Hypertension	September 2001 – August 2005
Laboratory of Prof Walter J Koch, Thomas Jefferson University, Philadelphia, Pennsylvania Mechanisms of neoangiogenesis: role of adrenergic system	August 2005 - October 2005

Laboratory of Prof Bruno Trimarco, "Federico II" University Naples, Italy

Role of the beta 2 adrenergic receptor in neoangiogenesis

October 2005 – May 2007

Laboratory of Prof Walter J Koch, Thomas Jefferson University,

Philadelphia, Pennsylvania

Heart failure and defective cardiac metabolism: role of GRKs

May 2007 – February 2012

Laboratory of Prof Walter J Koch, Temple University,

Philadelphia, Pennsylvania

Heart failure and mitochondrial functions

February 2012 – December 2012

EMPLOYMENT

Post-Doctoral fellow at Thomas Jefferson University of Philadelphia

May 2007 – February 2012

Assistant Professor at Temple University of Philadelphia

February 2012 - December 2012

Adjunct Professor at Temple University of Philadelphia

April 2012 – April 2014

Assistant Professor at University of Salerno

December 2012 – December 2017

Associate Professor at University of Salerno

October 2018 - present

RESEARCH INTEREST

Molecular and pathophysiological mechanisms of Cardiac diseases: Role of G protein coupled receptor Kinases (GRKs) on cardiac metabolism and functions

Role of the endothelium in regulation of vascular functions: Role of GRKs and GPCRs in vasomotor responses, angiogenesis and inflammations.

Development of new molecular target for treatment of cardiovascular diseases: identification, characterization and synthesis of new drugs.

TEACHING INTEREST

Molecular and Clinical Cardiology, new approaches for treatment of Cardiovascular diseases.

PROFESSIONAL ACTIVITIES

EDUCATIONAL

Course of Gene Therapy in Internal Medicine at "Federico II" University of Naples	2004-2007
Member of the Academy Board of the PhD program "Healthy Aging" and "Translational Medicine"- University of Salerno	Sept 2013 – present
Course of Cardiovascular Disease at University of Salerno for healthcare professions	October 2013 - present

PROFESSIONAL PUBLICATIONS (Editor, Reviewer, etc):

<i>British Journal of Pharmacology</i> : Reviewer	2007-present
<i>Atherosclerosis</i> : Reviewer	2007-present
<i>Journal of Molecular Cardiology</i> : Reviewer	2012-present
<i>Pharmacological Research</i> : Reviewer	2013-present
<i>Medicine</i> : Reviewer	2015- present
Scientific Report: Reviewer	2016-present
Frontiers: Editor	2013-present
Translational Medicine@Unisa: Editor	2016-present

PROFESSIONAL MEMBERSHIP

Member of the following societies: American Heart Association (AHA), Nucleus member of the Working group on Myocardial function of European Society of Cardiology, HFA gold Member, ESC professional Member, Italian Society of Hypertension

NATIONAL AND INTERNATIONAL COLLABORATIONS

Walter J Koch, PhD	Temple University of Philadelphia, PA, USA
Gerald W Dorn II, MD	Washington University at St Lois, MO, USA
Anastasios Lympieropoulos	Nova University, Ft Lauderdale, FL, USA
Petronila Penela , PhD	Universidad Autonoma de Madrid, Spain
Gaetano Santulli MD, PhD	Columbia University, NY, USA
Guido Iaccarino MD, PhD	University of Salerno, Italy
Bruno Trimarco, MD	"Federico II" University of Naples, Italy

AWARDS, HONORS AND FELLOWSHIP

Italian Society of Hypertension (SIIA) Prize for Young Investigator	2002
Italian Society of Internal Medicine (SIMI) – Sanofi Aventis award for best presented project	2004
Italian Society of Hypertension Award “Salvatore Campus” for young investigator abroad	2006
American Heart Association (AHA) Post-Doctoral Fellowship	2009-2011
Young Investigator Travel Award of American Heart Association (AHA)	2010

RESEARCH PROJECT DEVISED AND MANAGED

American Heart Association grant for the project entitled: “GRK2 as a novel regulator of cardiac metabolism” (2009)

LIST OF PUBLICATIONS

H-index: 21; Total citations: 1205 (Scopus Database-July 2019)

57 peer-reviewed journal articles; 4 chapters; >300 Abstracts presented as poster and oral presentations at National and International meetings.

Peer Reviewed Journal Articles:

1. De Angelis E, Pecoraro M, Rusciano MR, **Ciccarelli M**, Popolo A. Cross-Talk between Neurohormonal Pathways and the Immune System in Heart Failure: A Review of the Literature. *Int J Mol Sci*. 2019 Apr 5;20(7). pii: E1698. doi: 10.3390/ijms20071698. Review.
2. Cipolletta E, Gambardella J, Fiordelisi A, Del Giudice C, Di Vaia E, **Ciccarelli M**, Sala M, Campiglia P, Coscioni E, Trimarco B, Sorriento D, Iaccarino G. Antidiabetic and Cardioprotective Effects of Pharmacological Inhibition of GRK2 in db/db Mice. *Int J Mol Sci*. 2019 Mar 25;20(6). pii: E1492. doi: 10.3390/ijms20061492
3. Russo M, Guida F, Paparo L, Trinchese G, Aitoro R, Avagliano C, Fiordelisi A, Napolitano F, Mercurio V, Sala V, Li M, Sorriento D, **Ciccarelli M**, Ghigo A, Hirsch E, Bianco R, Iaccarino G, Abete P, Bonaduce D, Calignano A, Berni Canani R, Tocchetti CG. The novel butyrate derivative phenylalanine-butyramide protects from doxorubicin-induced cardiotoxicity. *Eur J Heart Fail*. 2019 Apr;21(4):519-528. doi: 10.1002/ejhf.1439. Epub 2019 Mar 6
4. Gambardella J, De Rosa M, Sorriento D, Prevete N, Fiordelisi A, **Ciccarelli M**, Trimarco B, De Luca N, Iaccarino G. Parathyroid Hormone Causes Endothelial Dysfunction by Inducing Mitochondrial ROS and Specific Oxidative Signal Transduction Modifications. *Oxid Med Cell Longev*. 2018 Dec 19;2018:9582319. doi: 10.1155/2018/9582319. eCollection 2018
5. Gambardella J, **Ciccarelli M**, Del Giudice C, Fiordelisi A, De Rosa M, Sala M, Pacelli R, Campiglia P, Trimarco B, Iaccarino G, Sorriento D. A Novel Small Peptide Inhibitor of NF κ B, RH10, Blocks Oxidative Stress-Dependent Phenotypes in Cancer. *Oxid Med Cell Longev*. 2018 Nov 4;2018:5801807. doi: 10.1155/2018/5801807. eCollection 2018.

6. D'Auria F, Polito MV, Vitulano G, **Ciccarelli M**, De Rosa R, Gigantino A, Piscione F, Galasso G. Predictors of left ventricular reverse remodeling in patients with chronic heart failure. **J Cardiovasc Med (Hagerstown)**. 2018 Aug;19(8):465-469. doi: 10.2459/JCM.0000000000000679. No abstract available. PMID: 29952847
7. Bondue A, Arbustini E, Bianco A, **Ciccarelli M**, Dawson D, De Rosa M, Hamdani N, Hilfiker-Kleiner D, Meder B, Leite-Moreira AF, Thum T, Tocchetti CG, Varricchi G, Van der Velden J, Walsh R, Heymans S. Complex roads from genotype to phenotype in dilated cardiomyopathy: scientific update from the Working Group of Myocardial Function of the European Society of Cardiology. **Cardiovasc Res**. 2018 Aug 1;114(10):1287-1303. doi: 10.1093/cvr/cvy122.
8. Visco V, Finelli R, Pascale AV, Mazzeo P, Ragosa N, Trimarco V, Illario M, **Ciccarelli M**, Iaccarino G. Difficult-to-control hypertension: identification of clinical predictors and use of ICT-based integrated care to facilitate blood pressure control. **J Hum Hypertens**. 2018 Jul;32(7):467-476. doi: 10.1038/s41371-018-0063-0. Epub 2018 May 1. PMID: 29713051
9. Pascale V, Finelli R, Giannotti R, Coscioni E, Izzo R, Rozza F, Caputo D, Moscato P, Iaccarino G, **Ciccarelli M**. Cardiac eccentric remodeling in patients with rheumatoid arthritis. **Sci Rep**. 2018 Apr 12;8(1):5867. doi: 10.1038/s41598-018-24323-0. PMID: 29651025
10. Sorriento D, Santulli G, **Ciccarelli M**, Maione AS, Illario M, Trimarco B, Iaccarino G. The Amino-Terminal Domain of GRK5 Inhibits Cardiac Hypertrophy through the Regulation of Calcium-Calmodulin Dependent Transcription Factors. **Int J Mol Sci**. 2018 Mar 15;19(3). pii: E861. doi: 10.3390/ijms19030861.
11. Franco A, Sorriento D, Gambardella J, Pacelli R, Prevete N, Procaccini C, Matarese G, Trimarco B, Iaccarino G, **Ciccarelli M**. GRK2 moderates the acute mitochondrial damage to ionizing radiation exposure by promoting mitochondrial fission/fusion. **Cell Death Discov**. 2018 Feb 14;4:25. doi: 10.1038/s41420-018-0028-7. eCollection 2018 Dec.
12. Pecoraro M, **Ciccarelli M**, Fiordelisi A, Iaccarino G, Pinto A, Popolo A. Diazoxide Improves Mitochondrial Connexin 43 Expression in a Mouse Model of Doxorubicin-Induced Cardiotoxicity. **Int J Mol Sci**. 2018 Mar 7;19(3). pii: E757. doi: 10.3390/ijms19030757.
13. Frantz S, Falcao-Pires I, Balligand JL, Bauersachs J, Brutsaert D, **Ciccarelli M**, Dawson D, de Windt LJ, Giacca M, Hamdani N, Hilfiker-Kleiner D, Hirsch E, Leite-Moreira A, Mayr M, Thum T, Tocchetti CG, van der Velden J, Varricchi G, Heymans S. The innate immune system in chronic cardiomyopathy: a European Society of Cardiology (ESC) scientific

- statement from the Working Group on Myocardial Function of the ESC. *Eur J Heart Fail.* 2018 Mar;20(3):445-459. doi: 10.1002/ejhf.1138. Epub 2018 Jan 15. Review.
14. Pascale AV, Finelli R, Giannotti R, Visco V, Fabbricatore D, Matula I, Mazzeo P, Ragosa N, Massari A, Izzo R, Coscioni E, Illario M, **Ciccarelli M**, Trimarco B, Iaccarino G. Vitamin D, parathyroid hormone and cardiovascular risk: the good, the bad and the ugly. **J Cardiovasc Med** (Hagerstown). 2018 Feb;19(2):62-66. doi: 10.2459/JCM.0000000000000614.
 15. Pecoraro M, Rodríguez-Sinovas A, Marzocco S, **Ciccarelli M**, Iaccarino G, Pinto A, Popolo A. Cardiotoxic Effects of Short-Term Doxorubicin Administration: Involvement of Connexin 43 in Calcium Impairment. **Int J Mol Sci.** 2017 Oct 11;18(10). pii: E2121. doi: 10.3390/ijms18102121.
 16. Visco V, Finelli R, Pascale AV, Giannotti R, Fabbricatore D, Ragosa N, **Ciccarelli M**, Iaccarino G. Larger Blood Pressure Reduction by Fixed-Dose Compared to Free Dose Combination Therapy of ACE Inhibitor and Calcium Antagonist in Hypertensive Patients. *Transl Med UniSa.* 2017 Jul 1;16:17-23. eCollection 2017 Jan
 17. Pignataro P, Pezone L, Di Gioia G, Franco D, Iaccarino G, Iolascon A, **Ciccarelli M**, Capasso M. Association Study Between Coronary Artery Disease and rs1333049 Polymorphism at 9p21.3 Locus in Italian Population. **J Cardiovasc Transl Res.** 2017 Dec;10(5-6):455-458. doi: 10.1007/s12265-017-9758-9. Epub 2017 Jun 21. Erratum in: *J Cardiovasc Transl Res.* 2017 Dec;10(5-6):459.
 18. Sorriento D, Gambardella J, Fiordelisi A, Trimarco B, **Ciccarelli M**, Iaccarino G, Santulli G. Mechanistic Role of Kinases in the Regulation of Mitochondrial Fitness. *Adv Exp Med Biol.* 2017;982:521-528. doi: 10.1007/978-3-319-55330-6_26. Review.
 19. Gambardella J, Sorriento D, **Ciccarelli M**, Del Giudice C, Fiordelisi A, Napolitano L, Trimarco B, Iaccarino G, Santulli G. Functional Role of Mitochondria in Arrhythmogenesis. **Adv Exp Med Biol.** 2017;982:191-202. doi: 10.1007/978-3-319-55330-6_10. Review
 20. Maione AS, Cipolletta E, Sorriento D, Borriello F, Soprano M, Rusciano MR, D'Esposito V, Markabaoui AK, De Palma GD, Martino G, Maresca L, Nobile G, Campiglia P, Formisano P, **Ciccarelli M**, Marone G, Trimarco B, Iaccarino G, Illario M. Cellular subtype expression and activation of CaMKII regulate the fate of atherosclerotic plaque. *Atherosclerosis.* 2017 Jan;256:53-61. doi: 10.1016/j.atherosclerosis.2016.11.006. Epub 2016 Nov 5.

21. Sorriento D, **Ciccarelli M**, Cipolletta E, Trimarco B, Iaccarino G. "Freeze, Don't Move": How to Arrest a Suspect in Heart Failure - A Review on Available GRK2 Inhibitors. **Front Cardiovasc Med**. 2016 Dec 6;3:48. doi: 10.3389/fcvm.2016.00048. eCollection 2016. Review.
22. Pecoraro M, Del Pizzo M, Marzocco S, Sorrentino R, **Ciccarelli M**, Iaccarino G, Pinto A, Popolo A. Inflammatory mediators in a short-time mouse model of doxorubicin-induced cardiotoxicity. **Toxicol Appl Pharmacol**. 2016 Feb 15;293:44-52. doi: 10.1016/j.taap.2016.01.006. Epub 2016 Jan 11.
23. **Ciccarelli M**, Finelli R, Rivera N, Santulli G, Izzo R, De Luca N, Rozza F, Ceccarelli M, Pagnotta S, Uliano F, Tremigliozi R, Condorelli G, Trimarco V, Iaccarino G. The possible role of chromosome X variability in hypertensive familiarity. **J Hum Hypertens**. 2016 Feb 25. doi: 10.1038/jhh.2016.9.
24. Cimmino G, Ciccarelli G, Morello A, **Ciccarelli M**, Golino P. High Density Lipoprotein Cholesterol Increasing Therapy: The Unmet Cardiovascular Need. **Transl Med UniSa**. 2014 Sep 1;12:29-40. eCollection 2015 May-Aug
25. Sorriento D, Santulli G, Franco A, Cipolletta E, Napolitano L, Gambardella J, Gomez-Monterrey I, Campiglia P, Trimarco B, Iaccarino G, **Ciccarelli M**. Integrating GRK2 and NFkappaB in the Pathophysiology of Cardiac Hypertrophy. **J Cardiovasc Transl Res**. 2015 Jul 30.
26. Soprano M, Rusciano MR, **Ciccarelli M**, Maione AS, Formisano P, Illario M. Metabolic Syndrome and Aging: Calcium Signaling as Common Regulator. **Curr Diabetes Rev**. 2015 Jul 22.
27. Sorriento D, Franco A, Rusciano MR, Maione AS, Soprano M, Illario M, Iaccarino G, **Ciccarelli M**. Good at Heart: Preserving Cardiac Metabolism during aging. **Curr Diabetes Rev**. 2015 Jul 22.
28. Esposito G, Schiattarella GG, Perrino C, Cattaneo F, Pironti G, Franzone A, Gargiulo G, Magliulo F, Serino F, Carotenuto G, Sannino A, Ilardi F, Scudiero F, Brevetti L, Olivetti M, Giugliano G, Del Giudice C, **Ciccarelli M**, Renzone G, Scaloni A, Zambrano N, Trimarco B. **Cardiovasc Res**. 2015 Sep 1;107(4):431-41. doi: 10.1093/cvr/cvv173. Epub 2015 Jun 22.
29. Cipolletta E, Rusciano MR, Maione AS, Santulli G, Sorriento D, Del Giudice C, **Ciccarelli M**, Franco A, Crola C, Campiglia P, Sala M, Gomez-Monterrey I, De Luca N, Trimarco B, Iaccarino G, Illario M. Targeting the CaMKII/ERK Interaction in the Heart Prevents Cardiac

- Hypertrophy. **PLoS One**. 2015 Jun 25;10(6):e0130477. doi: 10.1371/journal.pone.0130477. eCollection 2015.
30. Sorriento D, Del Giudice C, Bertamino A, **Ciccarelli M** et al. New small molecules, ISA27 and SM13, inhibit tumour growth inducing mitochondrial effects of p53. **BRITISH JOURNAL OF CANCER** Volume: 112 Issue: 1 Pages:77-85 Published: JAN 6 2015
 31. Sorriento D, **Ciccarelli M**, Santulli G, Illario M, Trimarco B, Iaccarino G. Trafficking GRK2: Cellular and Metabolic consequences of GRK2 subcellular localization. **Transl Med UniSa**. 2014 Apr 8;10:3-7. eCollection 2014 Sep. Review.
 32. **Ciccarelli M**, Rusciano MR, Sorriento D et al. CaMKII protects MKP-1 from proteasome degradation in endothelial cells **CELLULAR SIGNALLING** Volume: 26 Issue: 10 Pages: 2167-2174 Published: OCT 2014
 33. **M Ciccarelli**, M Rusciano, D Sorriento, AS Maione, M Soprano et al. Messages from the Border: Novel Insights in Signal Transduction Pathways Involved in Tumor Invasion and Metastasis **Journal of Cancer Therapy** 6 (02), 199, 2015
 34. Woodall MC, **Ciccarelli M**; Woodall BP, et al. G Protein-Coupled Receptor Kinase 2 A Link Between Myocardial Contractile Function and Cardiac Metabolism **CIRCULATION RESEARCH** Volume: 114 Issue: 10 Pages: 1661-1670 Published: MAY 9 2014
 35. Sorriento D, Fusco A, **Ciccarelli M**, Rungi A, Anastasio A, Carillo A, Dorn GW 2nd, Trimarco B, Iaccarino G. Mitochondrial G protein coupled receptor kinase 2 regulates proinflammatory responses in macrophages. **FEBS Lett**. 2013 Nov 1;587(21):3487-94. doi: 10.1016/j.febslet.2013.09.002. Epub 2013 Sep 10.
 36. **Ciccarelli M**, Santulli G, Pascale V, Trimarco B, Iaccarino G. Adrenergic Receptors and Metabolism: Role in development of cardiovascular disease. **Front Physiol**. 2013 Oct 3;4:265. eCollection 2013. Review.
 37. Santulli G, **Ciccarelli M**, Trimarco B, Iaccarino G Physical activity ameliorates cardiovascular health in elderly subjects: the functional role of the β adrenergic system. **Front Physiol**. 2013;4:209.
 38. **Ciccarelli M**, Sorriento D, Franco A, Fusco A, Del Giudice C, Annunziata R, Cipolletta E, Monti MG, Dorn GW 2nd, Trimarco B, Iaccarino G. Endothelial g protein-coupled receptor kinase 2 regulates vascular homeostasis through the control of free radical oxygen species. **Arterioscler Thromb Vasc Biol**. 2013 Oct;33(10):2415-24. Epub 2013 Aug 15
 39. Fan Q, Chen M, Zuo L, Shang X, Huang MZ, **Ciccarelli M**, Raake P, Brinks H, Chuprun KJ, Dorn GW 2nd, Koch WJ, Gao E. Myocardial Ablation of G Protein-Coupled Receptor

- Kinase 2 (GRK2) Decreases Ischemia/Reperfusion Injury through an Anti-Intrinsic Apoptotic Pathway. **PLoS One**. 2013 Jun 21;8(6):e66234. Print 2013.
40. Galasso G., De Rosa R., **Ciccarelli M.**, Sorriento D., Del Giudice C., Strisciuglio T., De Biase C., Luciano R., Piccolo R., Pierri A., Di Gioia G., Prevede N., Trimarco B., Piscione F., Iaccarino G. β 2-adrenergic receptor stimulation improves endothelial progenitor cells mediated ischemic neoangiogenesis. **Circ Res**. 2013 Mar 29;112(7):1026-34.
41. Wei Z, Hurtt R, **Ciccarelli M**, Koch WJ, Doria C. Growth inhibition of human hepatocellular carcinoma cells by overexpression of G protein-coupled receptor kinase 2. **J Cell Physiol**. 2011 Aug 8. 227(6):2371-2377
42. Katz MG, Fargnoli AS, Swain JD, Tomasulo CE, **Ciccarelli M**, Huang ZM, Rabinowitz JE, Bridges CR. AAV6- β ARKct gene delivery mediated by molecular cardiac surgery with recirculating delivery (MCARD) in sheep results in robust gene expression and increased adrenergic reserve. **J Thorac Cardiovasc Surg**. 2011 Dec 3. 143(3): 720-723
43. Cipolletta E, **Ciccarelli M**, Izzo R, Finelli R, Trimarco B, Iaccarino G. A Polymorphism within the Promoter of the Dopamine Receptor D1 (DRD1 -48A/G) Associates with Impaired Kidney Function in White Hypertensive Patients. **Transl Med UniSa**. 2012 Jan 18;2:10-9. Print 2012 Jan
44. **Ciccarelli M**, Cipolletta E, Iaccarino G. GRK2 at the control shaft of cellular metabolism. **Curr Pharm Des**. 2012;18(2):121-7.
45. **Ciccarelli M**, Chuprun KJ, Rengo G, Gao E, Wei Z, Gold G, Gumpert A, Chen M, Otis N, Dorn II GW, Trimarco B, Iaccarino G & Koch WJ. GRK2 Activity Impairs Cardiac Glucose Uptake and Promotes Insulin Resistance following Myocardial Ischemia. **Circulation**. 2011 May; 123(18):1953-62.
46. Santulli G, Campanile A, Spinelli L, Panzillo EA, **Ciccarelli M**, Trimarco B, Iaccarino G. G Protein-Coupled Receptor Kinase 2 in Patients With Acute Myocardial Infarction. **Am J Cardiol**. 2011 Feb. 107(8):1125-1130
47. **Ciccarelli M**, Sorriento D, Zhou RH, Eckhart AD, Koch WJ, Trimarco B, Iaccarino G. Impaired neoangiogenesis in β 2 Adrenergic Receptor gene deficient mice is restored by adenoviral mediated gene transfer of the human β 2 adrenergic receptor. **Br J Pharmacology**. 2011 Feb;162(3):712-21.
48. Santulli G, **Ciccarelli M**, Palumbo G, Campanile A, Galasso G, Ziaco B, Altobelli GG, Cimini V, Piscione F, D'Andrea LD, Pedone C, Trimarco B, Iaccarino G. In vivo properties of the proangiogenic peptide QK. **J Transl Med**. 2009 Jun 8. Vol 7 Art 41.

49. Sorriento D, **Ciccarelli M**, Santulli G, Campanile A, Altobelli GG, Cimini V, Galasso G, Astone D, Piscione F, Pastore L, Trimarco B, Iaccarino G. The G-protein-coupled receptor kinase 5 inhibits NfκB transcriptional activity by inducing nuclear accumulation of IκBα. **Proc Natl Acad Sci U S A**. 2008 Nov 18;105(46):17818-23. Epub 2008 Nov 13.
50. Izzo R, Cipolletta E, **Ciccarelli M**, Campanile A, Santulli G, Palumbo G, Vasta A, Formisano S, Trimarco B, Iaccarino G. Enhanced GRK2 Expression and Desensitization of beta AR Vasodilatation in Hypertensive Patients. **CTS-CLINICAL AND TRANSLATIONAL SCIENCE**, 1 (3): 215-220 DEC 2008.
51. Leosco D, Rengo G, Iaccarino G, Golino L, Marchese M, Fortunato F, Zincarelli C, Sanzari E, **Ciccarelli M**, Galasso G, Altobelli GG, Conti V, Matrone G, Cimini V, Ferrara N, Filippelli A, Koch WJ, Rengo F. Exercise promotes angiogenesis and improves adrenergic signaling in the post ischemic failing rat heart. **Cardiovasc Res**. 2008 May 1;78(2):385-94. Epub 2007 Dec 18.
52. **Ciccarelli M**, Santulli G, Campanile A, Galasso G, Cervèro P, Altobelli GG, Cimini V, Pastore L, Piscione F, Trimarco B, Iaccarino G. Endothelial alpha(1)-adrenoceptors regulate neo-angiogenesis. **Br J Pharmacol**. 2008 Mar;153(5):936-46. Epub 2007 Dec 17.
53. **Ciccarelli M**, Cipolletta E, Santulli G, Campanile A, Pumiglia K, Cervero P, Pastore L, Astone D, Trimarco B, Iaccarino G. Endothelial beta(2) adrenergic signaling to AKT: Role of G(i) and SRC. **Cellular Signalling**, 19 (9): 1949-1955 SEP 2007.
54. Leosco D, Rengo G, Iaccarino G, Sanzari E, Golino L, De Lisa G, Zincarelli C, Fortunato F, **Ciccarelli M**, Cimini V, Altobelli GG, Piscione F, Galasso G, Trimarco B, Koch W, Rengo F. Prior exercise improves age-dependent vascular endothelial growth factor down regulation and angiogenesis responses to hind-limb ischemia in old rats. **Journal of Gerontology Series A- Biological Sciences and Medical Sciences**, 62 (5): 471-480 MAY 2007.
55. Iaccarino G, **Ciccarelli M**, Sorriento D, Galasso G, Campanile A, Santulli G, Cipolletta E, Cerullo V, Cimini V, Altobelli GG, Piscione F, Priante O, Pastore L, Chiariello M, Salvatore F, Koch WJ, Trimarco B. Ischemic neoangiogenesis enhanced by beta 2-adrenergic receptor overexpression - A novel role for the endothelial adrenergic system. **Circ Res**, 97 (11): 1182-1189 NOV 25 2005.
56. Iaccarino G, **Ciccarelli M**, Sorriento D, Cipolletta E, Cerullo V, Iovino GL, Paudice A, Elia A, Santulli G, Campanile A, Arcucci O, Pastore L, Salvatore F, Condorelli G, Trimarco B.

AKT participates in endothelial dysfunction in hypertension. **Circulation**, 109 (21): 2587-2593 JUN 1 2004.

57. Iaccarino G, Cipolletta E, Fiorillo A, Anneschiarico M, **Ciccarelli M**, Cimini V, Koch WJ, Trimarco B. beta(2)-adrenergic receptor gene delivery to the endothelium corrects impaired adrenergic vasorelaxation in hypertension. **Circulation**, 106 (3): 349-355 JUL 16 2002.

Books, Monographs, Chapters:

1. **M.Ciccarelli**, D.Sorriento, E.Coscioni, G. Iaccarino, G. Santulli. Endocrinology of the Heart in Health and Disease. CHAPTER 11: Adrenergic Receptors. Academic Press 2017.
<https://doi.org/10.1016/C2014-0-04170-6>
2. **Ciccarelli M**, Sorriento D, Iaccarino G The Cardiovascular Adrenergic System: The Adrenergic System in Vascular Endothelial Cells (Chapter 3) 2015. ISBN: 978-3-319-13679-0 (Print) 978-3-319-13680-6 (Online)
3. **Ciccarelli M**, Chuprun K, Koch WJ. G Protein-Coupled Receptors: Structure, Signaling, and Physiology "Beta adrenergic receptors in cardiovascular and respiratory disease"
CAMBRIDGE UNIVERSITY PRESS, 2010.
4. **M. Ciccarelli**, A. Paudice, A. Elia, A. Bonanno, G. Iaccarino, B. Trimarco. Storia naturale dell'infarto rivascolarizzato: di quanto si allunga la vita? *Conoscere e curare e il cuore. Atti XX simposio del centro per la lotta contro l'infarto* 2003. pp117-126
5. Iaccarino G, Anneschiarico M, **Ciccarelli M**, Bonanno A, Trimarco V, Guerrera L, Elia A, Trimarco B. The evolution of Chronic Heart Failure: The Endothelial Border. ADVANCES IN REHABILITATION. Maugeri Foundation Books. 2002 Vol 13 99-103