

# **Curriculum Vitae**

Dr. Daniele Mancardi

<b>Title:</b>	PhD in Cardiovascular Physiology
<b>Birth date:</b>	August 15, 1972
<b>Birthplace:</b>	Torino, Italy
<b>Status:</b>	Common Law partner, one daughter, one son
<b>Gender:</b>	Male
<b>Institution:</b>	University of Torino, Department of Clinical and Biological Sciences
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<b>Email:</b>	<a href="mailto:daniele.mancardi@unito.it">daniele.mancardi@unito.it</a>
<b>Degree:</b>	PhD in Physiology (2005), Master of Science (1999)



## **Associate Professor, BIO/09 (Physiology), University of Torino**

### **Bibliometrics (source SCOPUS, September 2021)**

Hirsch-index: 31

Total citations: 3.225

**ORCID ID:** <https://orcid.org/0000-0003-3809-6047>

### **Research/Professional experience:**

2022-Quality Assurance Manager for the Department of Clinical and Biological Sciences;  
2018-University teaching innovation course, IRIDI, Second Level, University of Torino, Italy;  
2018-University teaching innovation course, IRIDI, First Level, University of Torino, Italy;  
2015-summer: Visiting Professor at Universidade do Rio Grande do Sul, Porto Alegre, Brazil;  
2013: Research Fellowship at Lakehead University, Thunder Bay, ON, Canada;  
2012: Research Fellowship at Lakehead University, Thunder Bay, ON, Canada;  
2008-Today: Assistant Professor of Physiology, University of Torino, Italy;  
2008: Winner of “*Brain Drain Containing*” Fellowship funded by the University of Torino;  
2006: Fellowship supported by Regione Piemonte at the University of Torino;  
2006: Fellowship supported by the National Institute for Cardiovascular Research;  
2005: Post-Doctoral Fellowship funded by Regione Piemonte at the University of Torino;  
2005: Post-Doctoral Fellow at the NIH of Bethesda, MD, USA;  
2003-2005: PhD student in Cardiovascular Physiology at the NIH of Bethesda, MD, USA;  
2001-2005: PhD student in Cardiovascular Physiology, University of Torino;  
2000-2001: Research fellow at the University of Torino.

### **Experimental Techniques:**

*In vivo* thoracic surgery in rodents and big animals;

*Ex vivo* techniques: isolated heart and Langendorff;

Spectrophotometric assays;

Molecular biology: immunoistochemistry, protein expression, RT-PCR;

Primary and immortalized cell culture, tissue culture;

Development of Data acquisition and Data analysis software.

### **Prize and awards:**

2007- Winner of the Young Researchers Award, Italian Physiological Society.

2017- Winner of the National Scientific Habilitation (ASN) for Associate Professor of Physiology

## **Teaching:**

Pre-doctoral tutor at University of Torino;  
Electrocardiography techniques at the Medical School, University of Torino;  
Member of the Physiology examination board at the Medical School “San Luigi Gonzaga”;  
Member of the Physiology examination board at the Nursing School “San Luigi Gonzaga”;  
Member of the Physiology examination board at the Interfaculty School of Sport Sciences;  
Lecturer in Physiology at the Nursing School from 2005 through 2009, University of Torino;  
Member of the Teachers Panel in the PhD program “Complex Systems in Life Sciences”;  
Assistant Professor of Physiology at the Medical School “San Luigi Gonzaga”, University of Torino.

## **Tutoring:**

2015- Nursing graduated student with the study:” Secondary prevention practices against acute myocardial infarction in Piedmont Hospitals”  
2017- Nursing graduated student with the study:” Neurophysiology of laugh and the beneficial effects in pediatrics”  
2017- Nursing graduated student with the study: “Therapeutic educational interventions for a person with myocardial infarction outcomes: literature”  
2017- Nursing graduated student with the study:” The importance of the caregiver for patients with heart failure”  
2018- Nursing graduated student with the study:” Cardiac patient’s awareness toward the risk of cigarette smoke: role of nurse”  
2018- Nursing graduated student with the study:” The motivational factors in secondary prevention of the cardiopathic patient  
2019- MS graduated student with the study:” Exogenous H<sub>2</sub>S protects against ischemia/reperfusion injury in human microvascular endothelial cells”  
2019- Nursing graduated student with the study:” Frailty indicators in the elderly: the use of Tilburg Fragility Index in a multidimensional in-hospital geriatric evaluation”  
2020- Nursing graduated student with the study:” Catheter Ablation, outcome and complication: the nursing role”  
2021- Nursing graduated student with the study:” Prevention of myocardial infarction in women: approach according to gender medicine”  
2022 – MS graduated student with the study:” Venous vs arterial endothelial function after treatment with autoimmune serum”

## **Research Fields:**

Free radicals activity and heart metabolism, protection and development;  
Stem cells and reparation of myocardial injuries;  
Cardioprotection mechanisms of pre- and post-conditioning;  
Effects of Hydrogen Sulfide and Gasotransmitters in cardiovascular diseases;  
Role of Hydrogen Sulfide in cell biology and physiology.

## **Grants:**

Grant from Intesa San Paolo, 2018: Biological effects of sub-toxic doses of glyphosate on the cardiovascular and nervous systems. (€ 99,400.00);  
Grant from Italian Ministry for University and Research (Ex 60%), 2012: Activation of pro-survival pathways in the postischemic heart in presence of co-morbidities. (€ 4,417.00);  
Grant from Italian Ministry for University and Research (Ex 60%) 2012 Role of the system Cystathionine-gamma-lyase/H<sub>2</sub>S in mitochondrial dynamic during the development of heart failure. (€ 3,600.00);

Grant from Compagnia San Paolo for the project (co-participant): Modulation of placental & tumoral hypoxia with oxygen-loaded nanobubbles: towards a multidisciplinary therapeutic approach (€ 228,054.00);  
Grant from Regione Piemonte for the project: “Role of endogenous Hydrogen Sulfide on myocardial post-ischemic recovery and novel drugs study” (€ 12,000.00);  
Grant from Regione Piemonte for the project: “Intracellular mechanisms of Hydrogen Sulfide-induced cardioprotection against hypoxic injury: study of new pharmacological approaches” (€ 8,000.00)  
World Wide Style grant from University of Torino and Fondazione CRT, 2015, (€ 8,000.00).

### **Reviewer activity:**

*Ad hoc* referee for several international peer reviewed journals: Cardiovasc Res, Antioxid Redox Signal, Biochim Biophys Acta, Free Radic Biol Med, Curr Pharm Biotechnol, Dig Liver Dis, British Journal of Pharmacology;

Invited reviewer for Grant proposals: The Wellcome Trust, French National Research Agency, Italian Ministry of Instruction, Research and University (MIUR), Swiss National Science Foundation.

Review Editor for Vascular Physiology-Frontiers in Physiology

Associate Editor for General Cardiovascular Medicine-Frontiers in Cardiovascular Medicine

Review Editor for Molecular Medicine for Cardiology-Frontiers in Molecular Medicine

### **International main collaborators:**

Dr. Rui Wang: Lakehead University, Thunder Bay, ON, Canada;

Dr. David A Wink: National Institutes of Health, Bethesda, MD, USA;

Dr. Nazareno Paolocci: Johns Hopkins University, Baltimore, MD, USA;

Dr. Sonia Donzelli: Universitätsklinikum Hamburg-Eppendorf, Germany;

Prof. Katrina Miranda: University of Arizona, AZ, USA;

### **Invited Speaker:**

HYDROGEN SULFIDE IN THE HYPOXIA/REOXYGENATION SCENARIO

Daniele Mancardi

*IV International Symposium on Oxidative Stress and Cardiovascular Physiology, Porto Alegre, RS, Brazil, September 25<sup>th</sup> 2015.*

HYDROGEN SULFIDE IN THE HYPOXIA/REOXYGENATION SCENARIO

Daniele Mancardi

*Congress of the Brazilian Society of Physiology, Águas de Lindóia, SP, Brazil, August 2<sup>nd</sup>-5<sup>th</sup> 2015.*

ENDOTHELIAL DYSFUNCTION AND HYDROGEN SULFIDE

Daniele Mancardi

*Symposium on the treatment of endothelial dysfunction with antioxidant, Torino, Italy, March 21<sup>st</sup> 2014.*

HYDROGEN SULFIDE: GASOTRASMITTER, RESPIRATORY GAS OR BOTH?

Daniele Mancardi

*Académie des Sciences et de Pharmacie, Paris, France, February 6<sup>th</sup> 2013.*

H<sub>2</sub>S IN THE LIMITATION OF MYOCARDIAL INFARCTION AND IN THE PREVENTION OF HEART FAILURE

Daniele Mancardi

*Italian Society of Cardiology, 72<sup>o</sup> Annual Meeting, Rome, Italy, December 10<sup>th</sup>-12<sup>th</sup>, 2011.*

REGULATION OF PROTEASOME SUBUNITS ACTIVITY BY HYDROGEN SULFIDE IN CULTURED CARDIOMYOBLASTS

Daniele Mancardi

*Society for Experimental Biology Annual Meeting, Glasgow, Scotland, July 1<sup>st</sup>-5<sup>th</sup> 2011.*

HYDROGEN SULFIDE AS A MEDIATOR OF PHYSIOLOGICAL FUNCTIONS

Daniele Mancardi

*Institut für Experimentelle und Klinische Pharmakologie und Toxikologie, University of Hamburg, Germany, March 22<sup>nd</sup>, 2010.*

INVOLVEMENT OF MITOCHONDRIA IN THE PROTECTIVE EFFECT OF HYDROGEN SULFIDE AGAINST OXIDATIVE STRESS IN CARDIOMYOCYTES

Mancardi D, Pagliaro P, Penna C.

*Society for Experimental Biology Annual Meeting, Marseille, France, July 6<sup>th</sup>-10<sup>th</sup> 2008.*

ENDOTHELIAL PARACRINE ACTION

Daniele Mancardi

*Italian Society for Experimental Biology Annual Meeting, Turin, Italy, December 6<sup>th</sup>-7<sup>th</sup> 2002.*

## **Publications in International peer reviewed Journals:**

1. RENAL FIBROSIS IN LUPUS NEPHRITIS  
Sciascia S, Cozzi M, Barinotti A, Radin M, Cecchi I, Fenoglio R, Mancardi D, Wilson Jones G, Rossi D, Roccatello D.  
*INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2022 Nov 18;23(22):14317. doi: 10.3390/ijms232214317.
2. JANUS, OR THEINEVITABLE BATTLE BETWEEN TOO MUCH AND TOO LITTLE OXYGEN  
Mancardi D, Ottolenghi S, Attanasio U, Tocchetti CG, Paroni R, Pagliaro P, Samaja M.  
*ANTIOXIDANTS & REDOX SIGNALING*. 2022 Nov;37(13-15):972-989. doi: 10.1089/ars.2021.0232. Epub 2022 Jul 22.
3. THE INFLUENCE OF SEX, GENDER, AND AGE ON COVID-19 DATA IN THE PIEDMONT REGION (NORTHWEST ITALY): THE VIRUS PREFERS MEN  
De Francia S, Ferretti A, Chiara F, Allegra S, Mancardi D, Allice TG, Milia MG, Gregori G, Burdino E, Avanzini C, Ghisetti V, Durio A.  
*LIFE*. 2022, 12(5), 643. <https://doi.org/10.3390/life12050643>
4. HNO PROTECTS THE MYOCARDIUM AGAINST REPERFUSION INJURY, INHIBITING THE MPTP OPENING VIA PKCE ACTIVATION  
Mancardi D, Pagliaro P, Ridnour LA, Tocchetti CG, Miranda K, Juhaszova M, Sollott SJ, Wink DA, Paolocci N.  
*ANTIOXIDANTS (Basel)*. 2022 Feb 14;11(2):382. doi: 10.3390/antiox11020382.
5. GENDER-SPECIFIC SIDE EFFECTS OF CHEMOTHERAPY IN PANCREATIC CANCER PATIENTS  
De Francia S, Mancardi D, Berchialla P, Armando T, Storto S, Allegra S, Soave G, Racca S, Chiara F, Carnovale J, Ciuffreda L, Mussa MV.  
*CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY*. 2022 Apr;100(4):371-377. doi: 10.1139/cjpp-2021-0622.
6. H<sub>2</sub>S PRETREATMENT IS PRO-MIGRATORY AND DECREASES ISCHEMIA/REPERFUSION INJURY IN HUMAN MICROVASCULAR ENDOTHELIAL CELLS  
Zicola E, Arrigo E, Mancardi D.  
*OXIDATIVE MEDICINE AND CELLULAR LONGEVITY*, 2021 APR 15, DOI: 10.1155/2021/8886666.
7. ENDOTHELIAL DYSFUNCTION AND CARDIOVASCULAR RISK IN LUPUS NEPHRITIS: NEW ROLES FOR OLD PLAYERS?  
Mancardi D, Arrigo E, Cozzi M, Cecchi I, Radin M, Fenoglio R, Roccatello D, Sciascia S.  
*EUROPEAN JOURNAL OF CLINICAL INVESTIGATION*, 2021 FEB;51(2) DOI: 10.1111/eci.13441.
8. OXIDATIVE STRESS AND INFLAMMATION IN PULMONARY ARTERIAL HYPERTENSION  
Belló-Klein A, Mancardi D, Rosa Araujo AS, Schenkel PC, Türck P, Lima-Seolin BG.  
*CURRENT MEDICINAL CHEMISTRY*. 2018 Dec 25; doi: 10.2174/092986732566171226114838.
9. HYPOXIA AND HYDROGEN SULFIDE DIFFERENTIALLY AFFECT NORMAL AND TUMOR-DERIVED VASCULAR ENDOTHELIUM.  
Bianco S, Mancardi D, Merlino A, Bussolati B, Munaron L.  
*REDOX BIOLOGY*. 2017 Mar 18; 12:499-504. doi: 10.1016/j.redox.2017.03.015.

10. ACTIVATION OF P2X7 AND P2Y11 PURINERGIC RECEPTORS INHIBITS MIGRATION AND NORMALIZES TUMOR-DERIVED ENDOTHELIAL CELLS VIA CAMP SIGNALING  
Avanzato D, Genova T, Fiorio Pla A, Bernardini M, Bianco S, Bussolati B, Mancardi D, Giraudo E, Maione F, Cassoni P, Castellano I, Munaron L.  
*SCIENTIFIC REPORTS.* 2016 Sep 2; 6:32602. doi: 10.1038/srep32602.
11. NOVEL PERSPECTIVES IN REDOX BIOLOGY AND PATHOPHYSIOLOGY OF FAILING MYOCYTES: MODULATION OF THE INTRAMYOCARDIAL REDOX MILIEU FOR THERAPEUTIC INTERVENTIONS  
Arcaro A, Pirozzi F, Angelini A, Chimenti C, Crotti L, Giordano C, Mancardi D, Torella D, Tocchetti CG.  
*OXIDATIVE MEDICINE AND CELLULAR LONGEVITY.* 2016, 6353469. doi: 10.1155/2016/6353469.
12. PRECONDITIONING CARDIOPROTECTION AND EXERCISE PERFORMANCE: A RADICAL POINT OF VIEW  
Crisafulli A, Mancardi D, Marongiu E, Rastaldo R, Penna C, Pagliaro, P.  
*SPORT SCIENCES FOR HEALTH.* 2015; 11, (2): 137-151.
13. HYDROGEN SULFIDE AND ENDOTHELIAL DYSFUNCTION: RELATIONSHIP WITH NITRIC OXIDE  
Altaany Z, Moccia F, Munaron L, Mancardi D\*, Wang R. \*Corresponding Author.  
*CURRENT MEDICINAL CHEMISTRY.* 2014;21(32):3646-61.
14. ROLE OF CALCIUM CHANNELS IN THE PROTECTIVE EFFECT OF HYDROGEN SULFIDE IN RAT CARDIOMYOBLASTS  
Avanzato D, Merlini A, Porrera S, Wang R, Munaron L, Mancardi D.  
*CELLULAR PHYSIOLOGY AND BIOCHEMISTRY.* 2014; 33 (4):1205-14.
15. HYDROGEN SULFIDE AS A REGULATOR OF CALCIUM CHANNELS  
Munaron L, Avanzato D, Moccia F, Mancardi D.  
*CELL CALCIUM.* 2013 Feb;53 (2):77-84.
16. CARDIOPROTECTION AGAINST ISCHEMIA/REPERFUSION INJURY AND CHROMOGRANIN A-DERIVED PEPTIDES  
Penna P, Tullio F, Perrelli MG, Mancardi D, Pagliaro P.  
*CURRENT MEDICINAL CHEMISTRY,* 2012;19 (24):4074-85.
17. INTEGRATING NITRIC OXIDE, NITRITE AND HYDROGEN SULFIDE SIGNALING IN THE PHYSIOLOGICAL ADAPTATIONS TO HYPOXIA: A COMPARATIVE APPROACH  
Fago A, Jensen FB, Tota B, Feelisch M, Olson KR, Helbo S, Lefevre S, Mancardi D, Palumbo A, Sandvikh GK, Skovgaard N.  
*COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY.* 2012 MAY;162(1):1-6.
18. HYDROGEN SULFIDE PROMOTES CALCIUM SIGNALS AND MIGRATION IN TUMOR-DERIVED ENDOTHELIAL CELLS  
Pupo E, Fiorio Pla A, Avanzato D, Moccia F, Avelino Cruz JE, Tanzi F, Merlini A, Mancardi D, Munaron L.  
*FREE RADICALS BIOLOGY AND MEDICINE.* 2011 NOV 1;51(9):1765-73.
19. OLD AND NEW GASOTRANSMITTERS IN THE CARDIOVASCULAR SYSTEM: FOCUS ON THE ROLE OF NITRIC OXIDE AND HYDROGEN SULFIDE IN ENDOTHELIAL CELLS AND CARDIOMYOCYTES  
Mancardi D, Fiorio Pla A, Moccia F, Tanzi F, Munaron L.  
*CURRENT PHARMACEUTICAL BIOTECHNOLOGY.* 2011 SEP;12(9):1406-15.

20. PLAYING WITH CARDIAC “REDOX SWITCHES”: THE “HNO WAY” TO MODULATE CARDIAC FUNCTION  
Tocchetti CG, Stanley BA, Murray CI, Sivakumaran V, Donzelli S, Mancardi D, Pagliaro P, Dong Gao W, van Eyk J, Kass DA, Wink DA, Paolocci P.  
*ANTIOXIDANT REDOX SIGNALING.* 2011 MAY 1;14(9):1687-98.
21. HYDROGEN SULFIDE REGULATES INTRACELLULAR CA<sup>2+</sup> CONCENTRATION IN ENDOTHELIAL CELLS FROM EXCISED RAT AORTA  
Moccia F, Bertoni G, Fiorio Pla A, Dragoni S, Pupo E, Merlini A, Mancardi D, Munaron L, Tanzi F.  
*CURRENT PHARMACEUTICAL BIOTECHNOLOGY.* 2011 SEP;12(9):1416-26.
22. ACTIVATED MET SIGNALLING IN THE DEVELOPING MOUSE HEART LEADS TO CARDIAC DISEASE  
Leo C, Sala V, Morello M, Chiribiri A, Riess I, Mancardi D, Schiaffino S, Ponzetto C, Crepaldi T.  
*PLOS ONE.* 2011 Feb 9;6(2):e14675.
23. HYPOXIA AND ANOXIA TOLERANCE OF VERTEBRATE HEARTS: AN EVOLUTIONARY PERSPECTIVE  
Tota B, Angelone T, Mancardi D, Cerra MC.  
*ANTIOXIDANT REDOX SIGNALING.* 2011 Mar 1;14(5):851-62.
24. COMPARING THE CHEMICAL BIOLOGY OF NO AND HNO  
Flores-Santana W, Switzer C, Ridnour LA, Basudhar D, Mancardi D, Donzelli S, Thomas DD, Miranda KM, Fukuto J, Wink DA.  
*ARCHIVES OF PHARMACAL RESEARCH.* 2009 AUG;32(8):1139-53.
25. POST-ISCHAEMIC ACTIVATION OF KINASES IN THE PRECONDITIONING-LIKE CARDIOPROTECTIVE EFFECT OF THE PLATELET ACTIVATING FACTOR  
Penna C, Mognetti B, Tullio F, Gattullo D, Mancardi D, Moro F, Pagliaro P, Alloatti G.  
*ACTA PHYSIOLOGICA (OXF).* 2009 NOV;197(3):175-85.
26. THE EMERGENCE OF NITROXYL (HNO) AS A PHARMACOLOGICAL AGENT  
Switzer CH, Flores-Santana W, Mancardi D, Donzelli S, Basudhar D, Ridnour LA, Miranda KM, Fukuto JM, Paolocci N, Wink DA.  
*BIOCHIMICA ET BIOPHYSICA ACTA-BIOENERGETICS,* 2009 JUL;1787(7):835-40.
27. PHYSIOLOGICAL AND PHARMACOLOGICAL FEATURES OF THE NOVEL GASOTRANSMITTER: HYDROGEN SULFIDE  
Mancardi D, Penna C, Merlini A, Del Soldato P, Wink DA, Pagliaro P.  
*BIOCHIMICA ET BIOPHYSICA ACTA-BIOENERGETICS,* 2009 JUL;1787(7):864-72.
28. POSTCONDITIONING INDUCES AN ANTI-APOPTOTIC EFFECT AND PRESERVES MITOCHONDRIAL INTEGRITY IN ISOLATED RAT HEARTS  
Penna C, Perrelli MG, Raimondo S, Tullio F, Merlini A, Moro F, Geuna S, Mancardi D, Pagliaro P.  
*BIOCHIMICA ET BIOPHYSICA ACTA-BIOENERGETICS,* 2009 JUL;1787(7):794-801.
29. CARDIOPROTECTION: A RADICAL VIEW FREE RADICALS IN PRE AND POSTCONDITIONING  
Penna C, Mancardi D, Rastaldo R, Pagliaro P.  
*BIOCHIMICA ET BIOPHYSICA ACTA-BIOENERGETICS,* 2009 JUL;1787(7):781-93.

30. SYNERGISTIC EFFECTS AGAINST POST-ISCHEMIC CARDIAC DYSFUNCTION BY SUB-CHRONIC NANDROLONE PRETREATMENT AND POSTCONDITIONING: ROLE OF B2-ADRENORECEPTORS  
Penna C, Abbadessa G, Mancardi D, Tullio F, Piccione F, Spaccamiglio A, Racca S, Pagliaro P.  
*JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY*, 2008 DEC;59(4):645-59. 2008, 59.
31. POSTCONDITIONING CARDIOPROTECTION AGAINST INFARCT SIZE AND POST-ISCHEMIC SYSTOLIC DYSFUNCTION IS INFLUENCED BY GENDER  
Penna C, Tullio F, Merlini A, Moro F, Raimondo S, Rastaldo R, Perrelli MG, Mancardi D, Pagliaro P.  
*BASIC RESEARCH IN CARDIOLOGY*. 2009 JUL;104(4):390-402.
32. FRACTAL PARAMETERS AND VASCULAR NETWORKS: FACTS & ARTIFACTS  
Mancardi D, Varetto G, Bucci E, Maniero F, Guiot C.  
*THEORETICAL BIOLOGY AND MEDICAL MODELLING*. 2008 JUL 17;5(1):12.
33. OMEGA 3 HAS BENEFICIAL EFFECT ON ISCHEMIA/REPERFUSION INJURY, BUT CAN NOT REVERSE THE EFFECT OF STRESSFUL FORCED EXERCISE  
Mancardi D, Tullio F, Crisafulli A, Rastaldo R, Folino A, Penna C, Pagliaro P.  
*NUTRITION, METABOLISM & CARDIOVASCULAR DISEASES*. 2009 JAN;19(1):20-6.
34. INTERMITTENT ADENOSINE AT THE BEGINNING OF REPERFUSION DOES NOT TRIGGER CARDIOPROTECTION  
Penna C, Mancardi D, Tullio F, Pagliaro P.  
*JOURNAL OF SURGICAL RESEARCH*. 2009 MAY 15;153(2):231-8.
35. THE PLATELET ACTIVATING FACTOR TRIGGERS PRECONDITIONING-LIKE CARDIOPROTECTIVE EFFECT VIA MITOCHONDRIA K-ATP CHANNELS AND REDOX-SENSIBLE SIGNALLING  
Penna C, Mognetti B, Tullio F, Gattullo D, Mancardi D, Pagliaro P, Alloatti G.  
*JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY*. 2008 MAR;59(1):47-54.
36. EARLY HOMING OF ADULT MESENCHYMAL STEM CELLS IN NORMAL AND INFARCTED ISOLATED BEATING HEARTS  
Penna C, Raimondo S, Ronchi G, Rastaldo R, Mancardi D, Cappello S, Losano G, Geuna S, Pagliaro P.  
*JOURNAL OF CELLULAR AND MOLECULAR MEDICINE*. 2008 MAR-APR; 12(2):507-21.
37. NITRIC OXIDE SYNTHASE FUNCTION IN EXERCISE  
Pagliaro P, Mancardi D, Penna C.  
*CURRENT ENZYME INHIBITION*. 2008, 4, 37-45.
38. POSTCONDITIONING AND INTERMITTENT BRADYKININ INDUCED CARDIOPROTECTION REQUIRE CYCLOOXYGENASE ACTIVATION AND PROSTACYCLIN RELEASE DURING REPERFUSION  
Penna C, Mancardi D, Tullio F, Pagliaro P.  
*BASIC RESEARCH IN CARDIOLOGY*. 2008 JUL;103(4):368-77.
39. THE PARADIGM OF POSTCONDITIONING TO PROTECT THE HEART  
Penna C, Mancardi D, Raimondo S, Geuna S, Pagliaro P.  
*JOURNAL OF CELLULAR AND MOLECULAR MEDICINE*. 2008 APR;12(2):435-58.
40. DELAYED PRECONDITIONING-MIMETIC ACTION OF EXERCISE OR NITROGLYCERIN DO NOT AFFECT HEMODYNAMICS AND EXERCISE PERFORMANCE IN BOTH TRAINED AND SEDENTARY SUBJECTS

Crisafulli A, Melis F, Tocco F, Pittau G, Lorrai L, Gori T, Mancardi D, Concu A, Pagliaro P.  
*JOURNAL OF SPORTS SCIENCE. 2007 OCT;25(12):1393-401.*

41. NITRIC OXIDE AND CARDIAC FUNCTION

Rastaldo R, Pagliaro P, Cappello S, Penna C, Mancardi D, Westerhof N, Losano G.  
*LIFE SCIENCES. 2007 AUG 16;81(10):779-93.*

42. NANDROLONE-PRETREATMENT ENHANCES CARDIAC BETA(2)-ADRENOCEPTOR EXPRESSION AND REVERSES HEART CONTRACTILE DOWN-REGULATION IN THE POST-STRESS PERIOD OF ACUTE-STRESSED RATS

Penna C, Abbadessa G, Mancardi D, Spaccamiglio A, Racca S, Pagliaro P.  
*JOURNAL OF STEROID BIOCHEMISTRY AND MOLECULAR BIOLOGY. 2007 OCT;107(1-2):106-13.*

43. INTERMITTENT ACTIVATION OF BRADYKININ B(2) RECEPTORS AND MITOCHONDRIAL K(ATP) CHANNELS TRIGGER CARDIAC POSTCONDITIONING THROUGH REDOX SIGNALING

Penna C, Mancardi D, Rastaldo R, Losano G, Pagliaro P.  
*CARDIOVASCULAR RESEARCH. 2007 JUL 1;75(1):168-77.*

44. PEROXYNITRITE AND MYOCARDIAL CONTRACTILITY: *IN VIVO* VERSUS *IN VITRO* EFFECTS

Katori T, Donzelli S, Tocchetti CG, Miranda KM, Cormaci G, Thomas DD, Ketner EA, Lee MJ, Mancardi D, Wink DA, Kass DA, Paolocci N.

*FREE RADICAL BIOLOGY & MEDICINE. 2006 NOV 15;41(10):1606-18.*

45. EFFECT OF ENDOTHELINS ON THE CARDIOVASCULAR SYSTEM

Penna C, Rastaldo R, Mancardi D, Cappello S, Pagliaro P, Westerhof N, Losano G.  
*JOURNAL OF CARDIOVASCULAR MEDICINE (HAGERSTOWN). 2006 SEP;7(9):645-652.*

46. POST-CONDITIONING INDUCED CARDIOPROTECTION REQUIRES SIGNALING THROUGH A REDOX-SENSITIVE MECHANISM, MITOCHONDRIAL ATP-SENSITIVE K<sup>+</sup> CHANNEL AND PROTEIN KINASE C ACTIVATION

Penna C, Rastaldo R, Mancardi D, Raimondo S, Cappello S, Gattullo D, Losano G, Pagliaro P.  
*BASIC RESEARCH IN CARDIOLOGY. 2006 MAR;101(2):180-9.*

47. DISCRIMINATING FORMATION OF HNO FROM OTHER REACTIVE NITROGEN OXIDE SPECIES

Donzelli D, Espey MG, Thomas DD, Mancardi D, Tocchetti CG, Ridnour LA, Paolocci N, King SB, Miranda KM, Lazzarino G, Fukuto JM, Wink DA.

*FREE RADICAL BIOLOGY & MEDICINE. 2006 MAR 15;40(6):1056-66.*

48. COMPARISON OF THE NO AND HNO DONATING PROPERTIES OF DIAZENIUMDIOLATES: PRIMARY AMINE ADDUCTS RELEASE HNO *IN VIVO*

Miranda KM, Katori T, Torres de Holding CL, Thomas L, Ridnour LA, McLendon WJ, Cologna SM, Dutton AS, Champion HC, Mancardi D, Tocchetti CG, Saavedra JE, Keefer LK, Houk KN, Fukuto JM, Kass DA, Paolocci N, Wink DA.

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49. POST-CONDITIONING REDUCES INFARCT SIZE IN THE ISOLATED RAT HEART: ROLE OF NITRIC OXIDE/CGMP PATHWAY

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### **Oral communications and posters:**

#### **GENDER ANALYSIS ON COVID-19 DATA IN PIEMONTE: THE VIRUS PREFERENCES MEN**

De Francia S, Ferretti A, Mancardi D, Chiara F, Allegra S, Allice T, Milia MG, Gregori G, Avanzini C, Ghisetti V, Durio A.

*94<sup>th</sup> National Congress of the Italian Society for Experimental Biology, Torino, Italy, 6-9 April 2022.*

*Journal of Biological Research 2022; volume 95:(s1)*

#### **NEW STANDARDISED PROCEDURE TO EXTRACT GLYPHOSATE AND AMINOMETHYLPHOSPHONIC ACID FROM ORGANIC AND INORGANIC MATRICES: TOWARD A PRACTICAL KIT FOR HPLC-UV DETECTION**

Allegra S, Chiara F, Arrigo E, De Francia S, Mancardi D.

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#### **GLYPHOSATE-INDUCED INJURY IN MYOBLASTS, ENDOTHELIAL CELLS AND NEURONS IS MEDIATED BY ROS PRODUCTION**

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#### **H<sub>2</sub>S IN THE LIMITATION OF MYOCARDIAL INFARCTION AND IN THE PREVENTION OF HEART FAILURE**

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ENDOTHELIAL PARACRINE ACTION

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