

## **ELENA GROSSINI**

Born in Novara, Italy, 28/07/1970

1995. Degree in Medicine “magna cum laude” and “menzione d’onore” at University of Turin, Italy, with a thesis in Physiology entitled “Hemodynamic reflex effects of gallbladder distension”.

2000. PhD in Molecular Medicine with a thesis entitled “Cardiovascular effects of ciclovirobuxine D” at University of East Piedmont “A. Avogadro” , Novara, Italy

2000. Winner of a grant by University of East Piedmont “A. Avogadro”. Research title: “Hemodynamic effects of testosterone”

1995-1998. Tutor and teaching assistant in Physiology at the Faculty of Medicine, University of Turin.

1998-2002. Teaching assistant in Physiology at the Faculty of Medicine, University of East Piedmont “A. Avogadro”.

2002 at 2011. Researcher in Physiology at University of East Piedmont “A. Avogadro”.

2011-2015. Assistant Professor at University of East Piedmont “A. Avogadro”.

2015. Associate Professor at University of East Piedmont “A Avogadro”

2017. National habilitation for Full Professor

2002 at today. Teaching experiences: courses of Physiology for Medicine, Biotechnology and Postgraduate Medical degrees at the University of East Piedmont “A. Avogadro”. The student evaluation has been generally good.

Throughout the last years Elena Grossini has carried out her scientific and teaching activity at the Department of Experimental and Clinical Medicine (Department of Translational Medicine, now) in Novara, University of East Piedmont “A. Avogadro”.

## **GRANTS**

Prof. Elena Grossini has received grants as principal investigator from Regione Piemonte, Ricerca Sanitaria Finalizzata in 2003, 2004, 2006, 2007, 2008 and 2009, and by Orion Pharma Corporation, Espoo Finland in 2011 and 2016. DORC Dutch Ophthalmic Research Centre 2020, 2021.

"Start Cup" Torino-Piemonte 2010 or the project: Advancing in Physiology and Cordis (A.P.C.).

Reviewer of many international journals (American Journal of Physiology; The Journal of Physiology; Experimental Physiology; Cellular Physiology and Biochemistry; Frontiers in

Physiology; The Journal of Applied Physiology; The Journal of Vascular Research; European Journal of Pharmacology; The Journal of Cardiovascular Pharmacology; Life Sciences; International Journal of Endocrinology and Metabolism; Endocrine; Hormone and Metabolic Research; British Journal of Pharmacology, Molecular Biology Reports; Plos One; IOVS; Journal of Clinical Medicine; Molecules; BioMed Research International).

REVIEW EDITOR FOR FRONTIERS IN PHYSIOLOGY

REVIEW EDITOR FOR FRONTIERS IN CARDIOVASCULAR MEDICINE

REVIEW EDITOR FOR FRONTIERS IN MOLECULAR BIOSCIENCES - CELLULAR BIOCHEMISTRY

REVIEW EDITOR FOR FRONTIERS IN BIOLOGICS AND REGENERATIVE MEDICINE

EDITORIAL BOARD MEMBER OF JOURNAL OF CARDIOLOGY AND THERAPY AND ANNALS OF SURGERY AND PERIOPERATIVE CARE, INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES; CURRENT MOLECULAR MEDICINE

In 2012, 2013 and 2016, 2020, Expert Reviewer by UEFISCDI (The Executive Agency for Higher Education, Research, Development and Innovation Funding).

Prof. Elena Grossini is member of Italian Physiological Society and of American Physiological Society.

**CLINICAL TRIAL: OXIDATIVE STRESS, ANXIETY AND DEPRESSION IN BREAST CANCER PATIENTS: IMPACT OF MUSIC THERAPY. REGISTERED ON THE CLINICALTRIALS.GOV PUBLIC WEBSITE NCT04446624**

TOTAL NUMBER OF PUBLICATIONS

Authors of 108 publications (PubMed 15/04/2022; 34 as first author; 20 as last author) on international journals.

Citation: 2090; h index: 25 (Scopus 15/04/2022).

## **SCIENTIFIC AREA OF INTEREST**

Prof. Elena Grossini has, initially, focused her interest upon neural and hormonal control of the cardiovascular system carried out in collaboration with the Department of Cardiovascular Studies of the University of Leeds (UK) and the St. James's University Hospital in Leeds, where she has spent periods studying and researching.

The results of those studies have shown the physiological role of visceral mechanoreceptors in reflex control of cardiac function, blood pressure, coronary and peripheral blood flows in anesthetized pigs. Also the mechanisms of the above reflexes have been investigated with particular attention to autonomic nervous system and renin-angiotensin system.

Furthermore, the role of hormones in control of cardiovascular system has also been analyzed. In particular, in the *in vivo* studies performed in anesthetized pigs, Elena Grossini has examined the effects of growth hormone, 17 beta-oestradiol, testosterone, progesterone, DHEA, insulin, prolactin, ghrelin, hPL, urocortin II, intermedin 1-47, gastrin 17, melatonin, secretin, hCG, adiponectin and des acyl ghrelin on vascular tone and cardiac function. The involvement of autonomic nervous system, specific receptors and NO has also been examined, as well. Moreover, Elena Grossini has been supervisor of *in vitro* experiments performed on porcine coronary or aortic endothelial cells in order to better analyze the intracellular signalling activated by those hormones, with particular attention to NO production, cAMP/PKA, PKC/PLC pathways, calcium movements and phosphorylation of kinases involved in eNOS activation, such as ERK1/2, Akt and p38MAPK.

In the last years Elena Grossini has focused her activity on cellular and organ protection against ischemic damages both *in vivo* and *in vitro*. In particular, she has examined the effects on cardiac, renal and liver function, apoptosis and programmed forms of cell death of calcium sensitizers, peptides and hormones infused in anesthetized pigs and rats. Moreover, in endothelial cells, cardiomyocytes and hepatocytes the role of the above agents on protection against ischemic injuries has been investigated. Particular attention has been given to apoptosis and cellular survival and to the related role of NO and mitochondrial KATP channels. The results obtained have promoted further studies aimed to the examination of the effects of such agents in patients underwent cardiac surgery.

## **TEACHING COURSES**

2004/2005

- “Physiology” –Biotechnological applications in cardiovascular, respiratory and renal diseases, for the degree in Biotechnology

2019/2020-2020/2021-2021/2022

- “Human Physiology” for the degree in Medicine in Novara

2019/2020-2020/2021-2021/2022

- “Human Physiology” for the degree in Medicine in Alessandria

2005/2006

- “Physiology” –Biotechnological applications in cardiovascular, respiratory and renal diseases, for the degree in Biotechnology
- “Physiology” –Biotechnological applications in endocrine, gastrointestinal, neurologic and dermatologic diseases, for the degree in Biotechnology

2007/2008

- “Physiology” –Cellular, tissue and organs morpho-functional characterization, for the degree in Biotechnology

2008/2009

- “Physiology” –Cellular, tissue and organs morpho-functional characterization, for the degree in Biotechnology
- “Human Physiology” for the postgraduate degree in Anesthesiology and Psychiatry

2009/2010

- “Human Physiology” for the postgraduate degree in Anesthesiology and Psychiatry

2010/2011-2020/2021-2021/2022

- “Human Physiology” for the postgraduate degree in Anesthesiology, Cardiology, Psychiatry.

2016/2017- 2018/2019

- Human Physiology” for the degree in Biotechnology

2016/2017-2020/2021-2021/2022

- “Human Physiology” for the postgraduate degree in Otorinolaringoiatry.

2017/2018-2020/2021

- Human Physiology” for the postgraduate degree in Maxillofacial Surgery

## NATIONAL AND INTERNATIONAL MEETINGS (2006-2021)

- 1) Grossini E, Garhwal D. Role of the neurovascular unit (NVU) and of the redox state in the amyotrophic lateral sclerosis pathogenesis. 71st SIF National Congress The Italian Society of Physiology Milan (Online) • 7-9 September 2021
- 2) Grossini E. Misophonia: analysis of the neuroanatomic patterns at the basis of vegetative and psychiatric symptoms. 71st SIF National Congress The Italian Society of Physiology Milan (Online) • 7-9 September 2021
- 3) Grossini E, Garhwal D, Venkatesan S, Mele A, Saraceno M, Scognamiglio A, De Marchi F, Mazzini L. Role of the neurovascular unit and of the redox state in Amyotrophic Lateral Sclerosis pathogenesis. Modulatory effects elicited by acetyl-L-carnitine. 33rd International Symposium on ALS/MND, Virtual, 7-10 December 2021
- 4) Grossini E. Exposure to serum from NAFLD patients affects hepatocyte viability, generates mitochondrial dysfunction and modulates pathways involved in fat accumulation and inflammation. ESCI 2020 Virtual Meeting. Covid19 edition, 20-30 September 2020.
- 5) Grossini E. Genistein and 17  $\beta$  estradiol counteract hepatic fatty degeneration by mechanisms involving mitochondria, inflammasome and kinases. ESCI 2020 Virtual Meeting. Covid19 edition, 20-30 September 2020.
- 6) Tapella L, Soda T, Mapelli L, Ponzoni L, Bortolotto V, Bondi H, Farruggio S, Raina G, Ummarino S, Manfredi M, Di Ruscio A, Verpelli C, Sala M, Marengo E, Grossini E, Grilli M, Genazzani AA, D'Angelo E, Moccia F, Lim D. Deletion of calcineurin from GFAP-expressing astrocytes impairs neuronal excitability and reproduces features of neurological diseases. FEPS 2019. Bologna, 10-13 September 2019.
- 7) Grossini E, De Zanet D, Migliavacca S, Pirisi M, Rolla. Platelet function and autonomic nervous system dysregulation in newly diagnosed hypertensive condition. FEPS 2019. Bologna, 10-13 September 2019.
- 8) Raina G, Farruggio S, Surico D, Bordino V, Cantaluppi V, Mary D, Melluzza C2 Grossini E. Pre-eclampsia and intrauterine growth restriction: manifestations of oxidative stress during pregnancy. FEPS 2019. Bologna, 10-13 September 2019.
- 9) S. Farruggio, G. Raina, A. Provera, R. Minisini, M. Barbaglia, R. Romito, M. Pirisi, E. Grossini. Genistein and estradiol exert protective effects against NFLD/NASH in

- hepatocytes through mechanisms related to Akt, Toll like receptors 4, Inflammasoma activation and Estrogenic Receptors. 2nd International Conference Fatty Liver Berlin 27-29 June, 2019
- 10) E Grossini, S Analysis of microvesicles pattern in preeclamptic women and of their effects on renal glomerular endothelial cells and podocytes, cultured alone or in co-stimulation. 69° SIF National Congress. Firenze, 19-21 September 2018.
  - 11) E. Grossini, G. Raina, S. Farruggio, F. Pagani, D. Surico, M. Quaglia, V. Cantaluppi The pattern of serum microvesicles changes in preeclamptic women in comparison with controls. Analysis of their effects on renal glomerular endothelial cells and podocytes, cultured alone or in co-stimulation. Europhysiology, London, 14-16 September 2018
  - 12) E. Grossini, S. Farruggio, S. Vujosevic, G. Raina, D. Filippini, V. Gatti, N. Clemente, D. Mary, D. Vezzola, G. Casini, L. Rossetti, S. De Cilla. Anti-vascular endothelial growth factors protect retinal pigment epithelium cells against oxidation by modulating nitric oxide release and autophagy. 68° SIF National Congress. Pavia, 6-8 September 2017.
  - 13) Grossini E, Farruggio S, Raina G, Qoqaiche F, Filippini D, Surico D. Monomeric adiponectin modulates nitric oxide release and calcium movements in porcine aortic endothelial cells in normal/high glucose conditions. Meeting of the Federation of European Physiological Societies and the Austrian Physiological Society. Vienna, 13-15 September, 2017
  - 14) S Farruggio, Grossini E. The role of Aflibercept and Ranibizumab against oxidative stress in Retinal Pigment epithelium cells (ARPE-19). Mechanisms related to nitric oxide release and apoptosis, autophagy modulation. Meeting of the Federation of European Physiological Societies and the Austrian Physiological Society. Vienna, 13-15 September 2017.
  - 15) P. Zeppegno, C. Gramaglia, E. Gattoni, S. Gili, E. Gambaro, E. Di Tullio, M.C. Rizza, S. Farruggio, L. Camillo, D. Mary, G. Vacca, E. Grossini. Asenapine Modulates Nitric Oxide Release and Calcium Movements in Cardyomyoblasts. 24 European Congress of Psychiatry. 12-15 March, Madrid, 2016.
  - 16) L. Girardi, S. Gili, E. Gambaro, E. Di Tullio, E. Gattoni, E. Grossini, S. Farruggio, L. Mora, C. Gramaglia, P. Zeppegno. Treatment of Bipolar Patients in Manic Phase: A Comparison between Asenapine and Aripiprazole. 24 European Congress of Psychiatry. 12-15 March, Madrid, 2016.

- 17) Grossini E Levosimendan effects on endothelial function, coronary flow / vasorelaxation. Beyond inotropy: evidence for pleiotropic effects of levosimendan and their consequences on the heart and non-cardiac organs. Interdisciplinary expert meeting organized by the Heart Failure Clinic, Attikon University Hospital, Athens, Greece Athens, February 26-27, 2016
- 18) Grossini E, G. Raina, F. Qoqaiche C. Molinari, S. Farruggio, G. Vacca. Des acyl ghrelin increases coronary blood flow in anesthetized pig in a nitric oxide-dependent way. Analysis of mechanisms of action in coronary artery endothelial cells. 66° SIF National Congress. Genoa, 16-18 September 2015.
- 19) Grossini E. Levosimendan Protection Against Kidney Ischemia/Reperfusion Injuries in Anesthetized Pigs. PCS World Congress of Cardiothoracic Renal Diseases 2014. October 31st-November 3rd, Athens, 2014
- 20) Grossini E, F Prodam, GE Walker, L Sigauo, S Farruggio, K Bellofatto, P Marotta, C Molinari, D Mary, G Bona and G Vacca. Effect of human monomeric adiponectin on cardiac function and perfusion in anesthetized pig. 65th SIF National Congress. Anacapri 28-30 Settembre, 2014.
- 21) Grossini E, P Pollesello, K Bellofatto, S Farruggio, L Sigauo, F Qoqaiche, P Marotta, G Raina, V De Giuli, G Valente and G Vacca. Protection Exerted by Levosimendan against Liver Peroxidative Injuries. First World Conference on Targeting Liver Disease. June 26-27, 2014, Jerusalem.
- 22) Grossini E, C Molinari, D Mary and G Vacca. In anesthetized pigs human chorionic gonadotropin increases myocardial perfusion and function through a  $\beta$ -adrenergic related pathway and nitric oxide. 64° Congresso Nazionale SIF, 18-20 Settembre, 2013, Portonovo.
- 23) E Grossini, C Molinari, P Pollesello, G Bellomo, G Valente, D Mary, P Caimmi, G Vacca Levosimendan protection against kidney ischemia/reperfusion injuries in anesthetized pigs. 10th International Congress on Coronary Artery Disease, 13-16 October, 2013, Florence.
- 24) E Grossini, P Caimmi, F Platini, C Molinari, F Uberti, M Cattaneo, G Valente, D Mary, L Tessitore, G Vacca. Modulation of programmed forms of cell death by intracoronary



- levosimendan during regional myocardial ischemia in anesthetized pigs. 10th International Congress on Coronary Artery Disease, 13-16 October, 2013, Florence.
- 25) E Grossini. Renal Effects of Levosimendan-Consensus Meeting, Munich, Germany 25<sup>th</sup> October 2012
- 26) E Grossini, C Molinari, DASG Mary, G Vacca. Intracoronary secretin acutely increases coronary blood flow and cardiac function in anesthetized pigs by interaction with specific receptors and the modulation of a  $\beta$ -adrenergic-related pathway. 63° Congresso Nazionale di Fisiologia. Verona, 21-23 settembre 2012.
- 27) E Grossini, P Caimmi, C Molinari, F Uberti, DASG Mary, G Vacca. Intracoronary melatonin increases coronary blood flow and cardiac function through  $\hat{I}^2$ -adrenoreceptors, MT1/MT2 receptors and nitric oxide in anesthetized pigs. 62° Congresso Nazionale di Fisiologia. Sorrento, 25-27 settembre 2011.
- 28) E Grossini. Melatonin receptors: actions and therapeutics. Snowmass Village, Colorado June 26– July 1, 2011
- 29) E Grossini. Levosimendan mechanism of action: did we reach a consensus? Stockholm, 1st September 2010
- 30) Caimmi PP, Grossini E, Micalizzi E, Vacca. Intracoronary Levosimendan Prevents Myocardial Ischemic Damages And Activates Survival Signalling Through KATP Channels And Nitric Oxide. The 59th SATS and 30th SCANSECT Congress, 26-28/8, 2010 Oslo.
- 31) E Grossini, C Molinari, PP Caimmi, F Uberti, G Vacca. Levosimendan Induces NO Production Through P38 Mapk, Erk And Akt In Porcine Coronary Endothelial Cells. Role For Mitochondrial KATP Channel. XVI Congresso Nazionale della Società Italiana delle Ricerche Cardiovascolari (SIRC). Imola, 29-31 ottobre 2009
- 32) E Grossini, PP Caimmi, F Uberti, C Molinari, G Vacca. Urocortin II Induces Nitric Oxide Production Through cAMP and Ca<sup>2+</sup> Related Pathways In Endothelial Cells. XVI

Congresso Nazionale della Società Italiana delle Ricerche Cardiovascolari (SIRC), Imola, 29-31 ottobre 2009

- 33) Grossini E., Molinari C., Mary D.A.S.G., Uberti F., Caimmi P-P., Surico N., Vacca G. Intracoronary genistein acutely increases coronary blood flow in anesthetized pigs through  $\beta$ -adrenergic mediated nitric oxide release and estrogenic receptors. 18th Annual Meeting Of The Scandinavian Society for Research in Cardiothoracic Surgery. Geilo, Norway February 7th – 9th 2008.
- 34) Grossini E., Caimmi P-P., Uberti F., Molinari C., Vacca G. Levosimendan acutely induce an increase of NO production through PI3K/Akt,ERK/MAPKs and p38/MAPK pathways in porcine coronary endothelial cells. Involvement of KATP channels. 18th Annual Meeting Of The Scandinavian Society for Research in Cardiothoracic Surgery. Geilo, Norway February 7th – 9th 2008.
- 35) Grossini E., Caimmi P-P., Molinari C., Uberti F., Vacca G., Teodori G. Urocortin II acutely causes CRFR2-Dependent NO production in porcine aortic endothelial cell. WSCTS 2008, 18th World Congress, April 30-May 3, 2008. Kos Island, Greece.
- 36) Grossini E., Caimmi P.-P., Uberti F., Molinari C., Vacca G. Levosimendan acutely induce an increase of NO production through PI3K/Akt,ERK/MAPKs and p38/MAPK pathways in porcine coronary endothelial cells. Involvement of KATP channels. WSCTS 2008, 18th World Congress, April 30-May 3, 2008. Kos Island, Greece.
- 37) Grossini E., Molinari C., Mary D.A.S.G., Uberti F., Caimmi P.-P, Surico N., Vacca G. Intracoronary genistein acutely increases coronary blood flow in anesthetized pigs through  $\beta$ -adrenergic mediated nitric oxide release and estrogenic receptors. WSCTS 2008, 18th World Congress, April 30-May 3, 2008. Kos Island, Greece
- 38) Grossini E., Molinari C., Mary D. A. S. G., Caimmi PP, Uberti F., Vacca G. Ucn II induces NO production in porcine aortic endothelial cells through cAMP and Ca<sup>2+</sup> related pathways leading to eNOS activation. Società Italiana di Fisiologia, 59° Congresso Nazionale, Cagliari 17-19 settembre 2008.

- 39) Grossini E., Molinari C., Mary D.A.S.G., Caimmi P.-P., Uberti F., Vacca G. Urocortin II induces NO production in porcine aortic endothelial cells through camp and Ca<sup>2+</sup> related pathways leading to eNOS activation. XV Congresso Nazionale della (SIRC), Imola (BO), 9 - 11 ottobre, 2008.
- 40) Grossini E, Caimmi PP, Molinari C, Teodori G, Vacca G. Hemodynamic effects of the intracoronary administration of urocortin 2 in the anesthetized pig. Atti del XVII Annual Meeting of the Scandinavian Society for Research in Cardiothoracic Surgery. Geilo, Norway, 8-10/2/2007.
- 41) Grossini E, Caimmi PP, Molinari C, Teodori G, Vacca G. Effetti intracoronarici del levosimendan nel maiale anestetizzato. Atti del Simposio: "Lo scompenso cardiaco acuto e riacutizzato oggi", Verona 21/4/2007.
- 42) Grossini E, Caimmi PP, Molinari C, Teodori G, Vacca G. Cardioprotection exerted by intracoronary levosimendan administration during regional myocardial ischemia in anesthetized pigs. Atti del 56th Annual Meeting of the Scandinavian Association for Thoracic Surgery and the 27th Annual Meeting of the Scandinavian Society for Extracorporeal Technology. Helsinki, Finland, 16-18/08/2007.
- 43) Grossini E, Caimmi PP, Molinari C, Teodori G, Vacca G. Hemodynamic effects of the intracoronary administration of urocortin 2 in the anesthetized pig. Atti del 56th Annual Meeting of the Scandinavian Association for Thoracic Surgery and the 27th Annual Meeting of the Scandinavian Society for Extracorporeal Technology. Helsinki, Finland, 16-18/08/2007.
- 44) Grossini E, Caimmi PP, Molinari C, Uberti F, Marino P, Vacca G. The direct effect of urocortin II administration on the coronary circulation and cardiac function in the anesthetized pig. Atti del XIV Congresso Nazionale della Società Italiana di Ricerche Cardiovascolari, Imola 27-29/9/2007.
- 45) Grossini E, Caimmi PP, Molinari C, Uberti F, Tessitore L, Teodori G, Vacca G. Cardioprotection exerted by intracoronary levosimendan administration during regional

myocardial ischemia in anesthetized pigs. Atti del XIV Congresso Nazionale della Società Italiana di Ricerche Cardiovascolari, Imola 27-29/9/2007.

46) Grossini E. Effetti cardioprotettivi della somministrazione intracoronarica di Levosimendan in presenza di ischemia miocardica regionale nel maiale anestetizzato. Atti XXIV Corso di Emodinamica, Briona (NO) 23-24/11/2007.

47) Grossini E, Caimmi P, Molinari C, Teodori G, Vacca G. Hemodynamic Effect of Intracoronary Administration of Levosimendan in the Anesthetized Pig.. The 16th Annual Meeting SSRCTS Geilo, February 7th-9th 2006, Norway.

## LIST OF PUBLICATIONS (1994-2022)

- 1) Vacca, G., Vono, P., Viano, I., Chiorboli, E., Grossini, E., Papillo, B. Gastric distension reflexly increases plasma renin activity in the anaesthetised pig. *Med Sci Res* 21:743-745, 1994
- 2) Vacca G, Battaglia A, Grossini E, Mary DASG, Papillo B, Pelosi G. Effect of distension of the stomach on renal blood flow in the anaesthetised pig. *Med. Sci. Res.* 22, 693-695, 1994
- 3) Vacca G, Battaglia A, Grossini E, Papillo B. Tachycardia and pressor responses to distension of the gallbladder. *Med. Sci. Res.* 22, 697-699, 1994
- 4) Vacca G, Chiorboli E, Grossini E, Papillo B. The effect of distension of the stomach on plasma renin activity in the anesthetized pig. *Cardioscience* 5:261-267, 1994
- 5) Vacca G, Battaglia A, Chiorboli E, Grossini E, Papillo B. The effects of distension of the stomach and the descending colon on phasic coronary blood flow in the anesthetized pig. *Cardioscience* 6:121-30, 1995
- 6) Vacca G, Papillo B, Battaglia A, Grossini E, Mary DASG, Pelosi G. The effects of hypertonic saline solution on coronary blood flow in anaesthetized pigs. *J. Physiol* 491: 843-851, 1996
- 7) Vacca G, Mary DASG, Battaglia A, Grossini E, Molinari C. The effect of distension of the stomach on peripheral blood flow in anaesthetized pigs. *Exp. Physiol.* 81: 385- 396, 1996
- 8) Vacca G, Mary DASG, Battaglia A, Grossini E, Molinari C. Role of vagal afferents in the reflex haemodynamic responses caused by gallbladder distension in anaesthetised pigs. *Med Sci Res* 24: 41-43, 1996
- 9) Vacca G, Battaglia A, Grossini E, Mary DASG, Molinari C. Reflex coronary vasoconstriction caused by gallbladder distension in anesthetized pigs. *Circulation* 94:2201-2209, 1996
- 10) Vacca G, Battaglia A, Grossini E, Mary DASG, Molinari C, Surico N. Reflex haemodynamic responses caused by distension of the uterus in anaesthetized pigs. *J. Auton Nerv Syst* 63: 1-11, 1997
- 11) Vacca G, Battaglia A, Grossini E, Mary DASG, Molinari C. Reflex renal vasoconstriction caused by distension of the gallbladder in anaesthetised pigs. *Med Sci Res* 25: 457-460, 1997

- 12) Vacca G, Battaglia A, Grossini E, Mary DASG, Molinari C, Surico N. Changes in regional blood flow in response to distension of the uterus in anaesthetised pigs. *J. Auton Nerv Syst* 66: 7-14; 1997
- 13) Vacca G, Battaglia A, Brunelleschi S, Grossini E, Mary DASG, Molinari C, Viano I. Hemodynamic effects of the intravenous administration of cyclorobuxine D in anesthetized pigs. *Life Sci* 61: 255-261, 1997
- 14) Vacca G, Battaglia A, Grossini E, Mary DASG, Molinari C, Trevi GP. The effects of combined distension of the stomach and the descending colon on coronary blood flow in anaesthetized pigs. *J Auton Nerv Syst* 67:97-104; 1997
- 15) Vacca G, Battaglia A, Chiorboli E, Grossini E, Mary DASG, Molinari C, Bona G. Haemodynamic effects of the intravenous administration of growth hormone in anaesthetized pigs. *Pflugers Arch.-Eur J Physiol.* 436: 159-167, 1998
- 16) Vacca G, Battaglia A, Grossini E, Mary DASG, Molinari C, Sampo' A. An alternative method of providing oxygen: its potential for use as oxygen supplementation. *Med Sci Res* 26:385-387, 1998
- 17) Vacca G, Battaglia A, Ferro R, Grossini E, Mary DASG, Molinari C, Surico N. The effect of distension of the uterus on plasma renin activity (PRA) in anaesthetized pigs. *J Auton Nerv Syst* 73: 163- 169, 1998
- 18) Vacca G, Battaglia A, Grossini E, Mary DASG, Molinari C, Surico N. The effect of  $17\beta$ -oestradiol on regional blood flow in anaesthetized pigs. *J Physiol* 514: 875-884, 1999
- 19) Molinari C, Battaglia A, Ermirio R, Grossini E, Mary DASG, Ruggeri P, Vacca G. Role of nitric oxide in the control of heart rate in anaesthetized pigs. *Med Sci Res* 27: 259-263, 1999
- 20) Grossini E, Battaglia A, Brunelleschi S, Mary DASG, Molinari C, Viano I, Vacca G. Coronary effects of cyclovirobuxine D in anesthetized pigs and in isolated porcine coronary arteries. *Life Sci* 65: 59- 65, 1999
- 21) Molinari C, Battaglia A, Grossini E, Mary DASG, Surico N, Vacca G. The role of  $\beta$ 2-adrenergic vascular receptors in the peripheral vasodilation caused by  $17\beta$ -estradiol in anesthetized pigs. *Life Sci* 65: 1545-1552, 1999

- 22) Molinari C, Grossini E, Mary DASG, Vacca G. Effect of distension of the gallbladder on plasma renin activity in anesthetized pigs. *Circulation* 30:2539-2545, 2000
- 23) Molinari C, Battaglia A, Bona G, Grossini E, Mary DASG, Vacca G. The role of nitric oxide in the coronary vasoconstriction caused by growth hormone in anaesthetized pigs. *Exp. Physiol.* 85: 203-208, 2000.
- 24) Ruggeri P, Battaglia A, Ermirio R, Grossini E, Molinari C, Mary DASG, Vacca G. Role of nitric oxide in the control of the heart rate within the nucleus ambiguus of rats. *Neuroreport* 11: 481-485, 2000
- 25) Molinari C, Battaglia A, Grossini E, Mary DASG, Stoker JB, Surico N, Vacca G. The effect of progesterone on coronary blood flow in anaesthetized pigs. *Exp. Physiol.* 86:101-108 2001
- 26) Molinari C, Battaglia A, Bona G, Grossini E, Mary DA, Ruggeri P, Stoker JB, Vacca G. Mechanisms of the renal vasodilation caused by insulin in anaesthetized pigs. *Life Sci* 69: 1699-1708, 2001
- 27) Molinari C, Battaglia A, Grossini E, Mary DASG, Surico N, Vacca G, Vassanelli C. The role of activation of the renin angiotensin system on the reflex regional vasoconstriction caused by distension of the uterus in anaesthetized pigs. *Autonom Neurosci* 93: 56-64, 2001
- 28) Molinari C, Battaglia A, Grossini E, Mary DASG, Surico N, Vacca G. Effect of progesterone on peripheral blood flow in anesthetized pigs. *J Vasc Res* 38: 569-577, 2001
- 29) Molinari C, Battaglia A, Grossini E, Mary DA, Vassanelli C, Vacca G. The effect of testosterone on regional blood flow in prepubertal anaesthetized pigs. *J Physiol.* 543: 365-372, 2002
- 30) Molinari C, Battaglia A, Grossini E, Mary DA, Bona G, Scott E, Vacca G. Effects of insulin on coronary blood flow in anesthetized pigs. *J Vasc Res.* 39: 504-513, 2002
- 31) Molinari C, Battaglia A, Grossini E, Mary DA, Vassanelli C, Vacca G. The effect of dehydroepiandrosterone on coronary blood flow in prepubertal anaesthetized pigs. *J Physiol.* 549: 937-944, 2003

- 32) Molinari C, Battaglia A, Grossini E, Florio S, Mary DA, Vassanelli C, Vacca G. Activation of the renin-angiotensin system contributes to the peripheral vasoconstriction reflexly caused by stomach distension in anaesthetized pigs. *Exp Physiol.* 88: 359-367, 2003
- 33) Molinari C, Battaglia A, Grossini E, Mary DA, Vassanelli C, Vacca G. The effect of dehydroepiandrosterone on regional blood flow in prepubertal anaesthetized pigs. *J Physiol.* 557:307-319, 2004
- 34) Grossini E, Battaglia A, Bona G, Mary DA, Molinari C, Vacca G. The effects of insulin on mesenteric blood flow in anaesthetized pigs. *Exp Physiol.* 89: 363-371, 2004
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