

PERSONAL INFORMATION**Roberta d'Emmanuele di Villa Bianca**

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Sex Female | Date of birth 18/06/1972 | Nationality Italian

Enterprise	University	EPR
☐ Management Level	☐ Full professor	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
☐ Mid-Management Level	☒ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

from 2016- up today

Associate Professor

Department of Pharmacy, School of Medicine and Surgery, University of Naples, Federico II, Naples, Italy

from 2006 to 2016

Assistant Professor

Department of Pharmacy, School of Medicine and Surgery, University of Naples, Federico II, Naples, Italy

from 2021 up today

Head of “Centro Interdipartimentale di Ricerca Preclinica e Clinica di Medicina Sessuale” (CIRMS),

University of Naples, Federico II, Naples

from 2006 to 2020

Member of the “Centro Interdipartimentale di Ricerca Preclinica e Clinica di Medicina Sessuale” (CIRMS), Responsible of the pre-clinical research

University of Naples, Federico II, Naples

from 2012 to 2015

Member at the European group “Management Committee in European Cooperation in Science and Technology (COST)” BMBS Action BM1005**EDUCATION AND TRAINING**

from 2003 to 2005

Postdoctoral fellow in Pharmacology,

Faculty of Pharmacy, University of Naples, Federico II, Italy

from 2001 to 2002

Research activity in foreign institutions Centre of Translational Medicine & Therapeutics, William Harvey Research Institute, within Barts & The London School of Medicine & Dentistry at Queen Mary, University of London

2002

Master in Pharmacology,

Faculty of Pharmacy, University of Naples, Federico II, Italy

2002

PhD in Pharmaceutical Sciences,

Faculty of Pharmacy, University of Naples, Federico II, Italy

1996

Degree in Pharmaceutical and Technological Chemistry,

Faculty of Pharmacy, University of Naples, Federico II, Italy

WORK ACTIVITIES

Awards	Farindustria award, for the publication "Sphingosine-1-phosphate induces endothelial NOS activation through phosphorylation in human corpus cavernosum". d'Emmanuele di Villa Bianca R. et al., J. Pharmacol Exp Ther. 2006, 316:703-708
Editorial activity	2020 to date Associated Editor for Frontiers in Cardiovascular and Smooth Muscle Pharmacology; 2018-2020 Guest Associate Editor for the Special Issue, Role of Blood Cells in Inflammatory and Vascular Disorders in Frontiers in Inflammation Pharmacology; 2020-2021 Special Issue Editor "Redox Signal in the Reproductive System" for Antioxidants Journal; 2015 to date Newsletter "SIF Ricerca di base" for the Italian Society of Pharmacology; Editor of chapters in books: Manuale di Farmacoterapia, Idelson-Gnocchi; Trattato di Farmacologia, Minerva Medica; Chemistry, Biochemistry and Pharmacology of Hydrogen Sulfide, Handbook of Experimental Pharmacology
Invited presentations	2024:42° Congresso Nazionale Società Italiana di Farmacologia, 13-16 novembre, Sorrento, Napoli, 2024; 2024: 9th European Congress of Pharmacology, EPHAR, Atene, 23-26 giugno 2024; 2021: 3rd International Symposium, Vascular research: bench to bedside, 5 June, Turkey; 2016: Convegno Annuale Update in Urologia (Associazione Campania di Urologia), Centro Congressi Federico II, Napoli 17 December; 2016: "IV Congresso Regionale SIUT Campania" Palinuro (SA) 20-21 May; 2015: Congresso "Keeping men healthy: let's assemble the puzzle – Evidence from basic, translational and clinical research" Napoli 19-20 June; 2015: "1 Giornata Urologica territoriale e costiera" Sorrento (NA), 11 April; 2015: Corso Avanzato di Farmacologia per Medici di Medicina Generale", Benevento 27 June; 2015 "Corso Avanzato di Farmacologia per Medici di Medicina Generale", Avellino 20 May; 2015: "Corso Avanzato di Farmacologia per Medici di Medicina Generale", Aversa (NA) 27 March; 2015: "Corso Avanzato di Farmacologia per Medici di Medicina Generale", Salerno 13 June; 2015: "Corso Avanzato di Farmacologia per Medici di Medicina Generale" Scafati (SA) 6 June; 2014: "Medicina di base e Urologia", Gragnano (NA) 11 February; 2014: "III Annual meeting prostata e dintorni gli urologi territoriali campani a confronto", Napoli 11 October; 2014: "Convegno Annuale di Urologia" Bacoli (NA), 9-10 May; 2013: "Corso di Aggiornamento su Disfunzione Erettile e Benessere Sessuale" Matera, 15-16 June; 2004: "Corso Nazionale di Aggiornamento in Andrologia Chirurgica" Potenza, 15-17 April
Grants	2022: Progetto PRIN_ Prot. P2022R34ZE Titled: NLRP3 inflammasome as a key driver of vascular diseases and NO/ H2S production: focus on cerebral and intestinal ischemia/reperfusion. (Unit PI) 2022: PNRR: National Center for Gene Therapy and Drugs based on RNA Technology_ spoke 5 – Inflammatory and Infectious diseases_ Codice progetto MUR: CN00000041 – CUP UNINA: E63C22000940007 (Unit P.I.) 2017: FFABR: 00005_FFABAR_2017_R_D_Emanuele_001_001 (PI) 2017: PRIN_ Prot. N. 2017MLC3NF Titled Endocrine disruptors: investigation of the effects on the immune and nervous systems. (Unit PI). 2017: Prot N FFC #18/2017 (Fondazione Fibrosi Cistica)- Project Title: Exploiting the potential of gallium for the treatment of <i>Pseudomonas aeruginosa</i> pulmonary infection., Partner 2 (participant of Unit). 2009: Grant funded by European Society of Sexual Medicine (ESSM), titled Urotensin II as a new biomarker in erectile function. Total financing 50.000,00 Euro, 12 months, PI. 2008: L.R. N5 05-C00001449 project titled : "Ruolo della 5 lipossigenasi nelle disfunzioni sessuali". Total financing 20.000,00 Euro, 12 months, PI
Patents	ANTICORPO ANTI CISTATIONINA BETA SINTASI FOSFORILATA E USO DELLO STESSO; N. 102014902319305 (RM2014A000750), accepted April 2017 (registered in Italy: 24/12/2014).

ADDITIONAL INFORMATION

Publications

1. Raffaella Sorrentino, Roberta d'Emmanuele di Villa Bianca, Laura Lippolis, Ludovico Sorrentino, Giuseppina Autore and Aldo Pinto (1999). Involvement of ATP-sensitive potassium channels in a model of a delayed vascular hyporeactivity induced by lipopolysaccharide in rats. British Journal of Pharmacology, 127, 1447-1453
2. Raffaella Sorrentino, Giuseppina Autore, Giuseppe Cirino, Roberta d'Emmanuele di Villa Bianca, Antonio Calignano, Massimo Vanasia, Ciro Alfieri, Ludovico Sorrentino and Aldo Pinto (2000). Effect of spironolactone and its metabolites on contractile property of isolated rat aorta rings. Journal of Cardiovascular Pharmacology, 36: 230-235
3. Vincenzo Mirone, Raffaella Sorrentino, Roberta d'Emmanuele di Villa Bianca, Ciro Imbimbo, Alessandro Palmieri, Ferdinando Fusco, Gianfranco Tajana, Giuseppe Cirino (2000). A standard

procedure for using human corpus cavernosum strips to evaluate drug activity. *Journal of Pharmacological and Toxicological Methods*, 44: 477-482

4. Sorrentino R., Capasso A., d'Emmanuele di Villa Bianca R., Pinto A. (2001). Dexamethasone modulates hypotension induced by opioids in anaesthetised rats. *European Journal of Pharmacology*, 430, 79-85

5. Roberta d'Emmanuele di Villa Bianca, Nicole S. Wayman, Michelle C. McDonald, Aldo Pinto, Martyn A. Sharpe, Prabal K. Chatterjee, Christoph Thiemermann (2002). Superoxide dismutase mimetic with catalase activity, EUK-134, attenuates the multiple organ injury and dysfunction caused by endotoxin in the rat. *Medical Science Monitor*, 8 (1): BR1-7

6. Giuseppe Caliendo, Elisa Perissutti, Vincenzo Santagada, Ferdinando Fiorino, Beatrice Severino, Roberta d'Emmanuele di Villa Bianca, Laura Lippolis, Aldo Pinto e Raffaella Sorrentino (2002). Synthesis and Vasorelaxant Activity of New 1,4-benzoxazine Derivates Potassium Channel Openers. *Bioorganic & Medicinal Chemistry*, 10: 2663-2669

7. McDonald MC, d'Emmanuele di Villa Bianca R, Wayman NS, Pinto A, Sharpe MA, Cuzzocrea S, Chatterjee PK, Thiemermann C (2003). A superoxide dismutase mimetic with catalase activity (EUK-8) reduces the organ injury in endotoxic shock. *European Journal of Pharmacology*, 466 (1-2): 181-189

8. Giuseppe Cirino, Raffaella Sorrentino, Roberta d'Emmanuele di Villa Bianca, Ada Popolo, Alessandro Calmieri, Ciro Imbimbo, Ferdinando Fusco, Nicola Longo, Gianfranco Tayana, Louis J. Ignaro, and Vincenzo Mirone. (2003). Involvement of beta3-adrenergic receptor activation via cyclic GMP-but not NO-dependent mechanism in human corpus cavernosum function. *Proceedings of the National Academy of Sciences of the United States of America*, 100 (9): 5531-5536

9. R. d'Emmanuele di Villa Bianca, L. Lippolis, G. Autore, A. Popolo, S. Marzocco, L. Sorrentino, A. Pinto & R. Sorrentino (2003). Dexamethasone improves vascular hyporeactivity induced by LPS in vivo by modulating ATP-sensitive potassium channels activity. *British Journal of Pharmacology*, 140 (1): 91-96

10. Laura Lippolis, Raffaella Sorrentino, Ada Popolo, Pasquale Mafia, Caterina Nasti, Roberta d'Emmanuele di Villa Bianca, Stefania Marzocco, Giuseppina Autore, Aldo Pinto. (2003). Time course of vascular reactivity to contracting and relaxing agents after endothelial denudation by balloon angioplasty in rat carotid artery. *Atherosclerosis*, 171: 171-179

11. Chatterjee Prabal K, Roberta d'Emmanuele di Villa Bianca, Ahils Sivarajah, Michelle C. McDonald MC, Salvatore Cuzzocrea, Christoph Thiemermann (2003). Pyrrolidine dithiocarbamate reduces renal dysfunction and injury caused by ischemia/reperfusion of the rat kidney. *European Journal of Pharmacology*, 482: 271-280

12. Miro A, Quaglia F, Sorrentino U, La Rotonda MI, d'Emmanuele di Villa Bianca R, Sorrentino R. (2004). Improvement of gliquidone hypoglycaemic effect in rats by cyclodextrin formulations. *European Journal of Pharmaceutical Sciences*. 23 (1):57-64

13. Giuseppe Caliendo, Elisa Perissutti, Vincenzo Santagada, Ferdinando Fiorino, Beatrice Severino, Donatella Cirillo, Roberta d'Emmanuele di Villa Bianca, Laura Lippolis, Aldo Pinto, Raffaella Sorrentino (2004). Synthesis by microwave irradiation of a substituted benzoxazine parallel library with preferential relaxant activity for guinea pig trachealis. *European Journal of Medicinal Chemistry*, 39: 815-826

14. Piccinelli AL, Arana S, Caceres A, d'Emmanuele di Villa Bianca R, Sorrentino R, Rastrelli L. (2004). New lignans from the roots of *Valeriana prionophylla* with antioxidative and vasorelaxant activities. *Journal of Natural Product*, 67 (7): 1135-1140.

15. Ianaro A, Maffia P, Grassia G, Di Meglio P, Sorrentino R, d'Emmanuele di Villa Bianca R., Di Rosa M, Ialenti A. (2004). Cloricromene in endotoxemia: role of NF-kappaB. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 370 (2): 140-145.

16. d'Emmanuele di Villa Bianca R, Sorrentino R, Roviezzo F, Imbimbo C, Palmieri A, De Dominicis G, Montorsi F, Cirino G, Mirone V. (2004). Peripheral relaxant activity of apomorphine and of selective receptor agonist on human corpus cavernosum strips. *International Journal of Impotence Research*, 17:127-133

17. Popolo A, Marzocco S, Nasti C, Lippolis L, d'Emmanuele di Villa Bianca R, Sorrentino R, Autore G, Pinto A. (2005). Phenotypic modifications of vascular smooth muscle cells could be responsible for vascular hyporeactivity to contracting agent in mechanically injured rat carotid artery. *Atherosclerosis*, 183(2): 213-221
18. d'Emmanuele di Villa Bianca R, Sorrentino R, Sorrentino R, Imbimbo C, Palmieri A, Fusco F, Maggi M, De Palma R, Cirino G, Mirone V. (2006). Sphingosine-1-phosphate induces endothelial NOS activation through phosphorylation in human corpus cavernosum. *Journal of Pharmacology and Experimental Therapeutics*, 316(2): 703-708
19. Lucattelli M, Lunghi B, Fineschi S, Mirone V, d'Emmanuele di Villa Bianca R, Longo N, Imbimbo C, De Palma R, Sorrentino R, Lungarella G, Cirino G. (2008). A new mouse model of Peyronie's disease: an increased expression of hypoxia-inducible factor-1 target genes during the development of penile changes. *International Journal of Biochemistry and Cell Biology*, 40(11): 2638-2648.
20. d'Emmanuele di Villa Bianca R, Sorrentino R, Mitidieri E, Marzocco S, Autore G, Thiemermann C, Pinto A, Sorrentino R. (2009). Recombinant human erythropoietin prevents lipopolysaccharide-induced vascular hyporeactivity in the rat. *Shock*, 31 (5): 529-534
21. F. Ungaro, R. d'Emmanuele di Villa Bianca, C. Giovino, A. Miro, R. Sorrentino, F. Quaglia, M. I. La Rotonda. (2009). Insulin-loaded PLGA/cyclodextrin large porous particles with improved aerosolization properties: in vivo deposition and hypoglycaemic activity after delivery to rat lungs. *Journal of Controlled Release*, 135 (1): 25-34
22. R. d'Emmanuele di Villa Bianca, R. Sorrentino, P. Maffia, V. Mirone, C. Imbimbo, F. Fusco, R. de Palma, L. J Ignarro, G. Cirino (2009). Hydrogen sulfide as a mediator of human corpus cavernosum smooth muscle relaxation. *Proceedings of the National Academy of Sciences of the United States of America*, 106 (11): 4513-4518.
23. Anna Iacono, Giuseppe Bianco, Giuseppina Mattace Raso, Emanuela Esposito, Roberta d'Emmanuele di Villa Bianca, Raffaella Sorrentino, Salvatore Cuzzocrea, Antonio Calignano, Giuseppina Autore and Rosaria Meli (2009). Maternal adaptation in pregnant hypertensive rats: improvement of vascular and inflammatory variables and oxidative damage in the kidney. *American Journal of Hypertension*, 22 (7): 777-783.
24. Grieco P, Carotenuto A, Campiglia P, Gomez-Monterrey I, Auriemma L, Sala M, Marcozzi C, d'Emmanuele di Villa Bianca R, Brancaccio D, Rovero P, Santicoli P, Meini S, Maggi CA, Novellino E. (2009). New Insight into the Binding Mode of Peptide Ligands at Urotensin-II Receptor: Structure-Activity Relationships Study on P5U and Urotensin. *Journal of Medicinal Chemistry*, 52(13): 3927-3940
25. Mirone V, d'Emmanuele di Villa Bianca R, Mitidieri E, Imbimbo C, Fusco F, Verze P, Vitale DF, Sorrentino R, Cirino G. (2009). Platelet Cyclic Guanosine Monophosphate as a Biomarker of Phosphodiesterase Type 5 Inhibitor Efficacy in the Treatment of Erectile Dysfunction: A Randomized Placebo-Controlled Study. *European Urology*, 56: 1067–1073
26. d'Emmanuele di Villa Bianca R, Cirino G, Mitidieri E, Coletta C, Grassia G, Roviezzo F, Grieco P, Novellino E, Imbimbo C, Mirone V, Sorrentino R. (2010). Urotensin II: A Novel Target in Human Corpus Cavernosum. *Journal of Sexual Medicine*, 7: 1778-1786
27. d'Emmanuele di Villa Bianca R, Coletta C, Mitidieri E, De Dominicis G, Rossi A, Sautebin L, Cirino G, Bucci M, Sorrentino R (2010). Hydrogen sulphide induces mouse paw oedema through activation of phospholipase A2. *British Journal of Pharmacology*, 161(8): 1835-1842
28. d'Emmanuele di Villa Bianca R, Sorrentino R, Coletta C, Mitidieri E, Rossi A, Vellecco V, Pinto A, Cirino G, Sorrentino R (2011). Hydrogen sulphide induced-dual vascular effect involves arachidonic acid cascade in rat mesenteric arterial bed. *Journal of Pharmacology and Experimental Therapeutics*, 337(1): 59-64
29. d'Emmanuele di Villa Bianca R, Sorrentino R, Mirone V, Cirino G (2011). Hydrogen sulfide and erectile function: a novel therapeutic target. *Nature Reviews Urology*, 8(5): 286-289

30. d'Emmanuele di Villa Bianca R, Mitidieri E, Mirone V, Fusco F, Imbimbo C, Cirino G, Sorrentino R (2011). An ex vivo standardized assay to measure human platelet cGMP. *Journal of Pharmacological and Toxicological Methods*, 64: 164–167
31. Ungaro F, d'Angelo I, Coletta C, d'Emmanuele di Villa Bianca R, Sorrentino R, Perfetto B, Tufano MA, Miro A, La Rotonda MI, Quaglia F (2012). Dry powders based on PLGA nanoparticles for pulmonary delivery of antibiotics: Modulation of encapsulation efficiency, release rate and lung deposition pattern by hydrophilic polymers. *Journal of Controlled Release*, 157(1): 149-159
32. Fusco F, d'Emmanuele di Villa Bianca R, Mitidieri E, Cirino G, Sorrentino R, Mirone V. (2012). Sildenafil Effect on the Human Bladder Involves the L-cysteine/Hydrogen Sulfide Pathway: A Novel Mechanism of Action of Phosphodiesterase Type 5 Inhibitors. *European Urology*, 62(6): 1174-1180
33. Carotenuto A, Auriemma L, Merlino F, Limatola A, Campiglia P, Gomez-Monterrey I, d'Emmanuele di Villa Bianca R, Brancaccio D, Santicoli P, Meini S, Maggi CA, Novellino E, Grieco P (2013). New insight into the binding mode of peptides at urotensin-II receptor by Trp-constrained analogues of P5U and urantide. *Journal of Peptide Sciences*, 19(5): 293-300
34. De Stefano D, Coletta C, d'Emmanuele di Villa Bianca R, Falcone L, d'Angelo I, Ungaro, F, Quaglia F, Carnuccio R, Sorrentino R (2013). A Decoy Oligonucleotide to NF- κ B Delivered Through Inhalable Particles Prevents LPS-Induced Rat Airway Inflammation. *American Journal of Respiratory Cell and Molecular Biology*, 49(2): 288-95
35. d'Emmanuele di Villa Bianca R, Mitidieri E, Di Minno MN, Kirkby NS, Warner TD, Di Minno G, Cirino G, Sorrentino R. (2013). Hydrogen sulphide pathway contributes to the enhanced human platelet aggregation in hyperhomocysteinemia. *Proceedings of the National Academy of Sciences of the United States of America*, 110(39): 15812-7
36. Mattace Raso G, Simeoli R, Russo R, Santoro A, Pirozzi C, d'Emmanuele di Villa Bianca R, Mitidieri E, Paciello O, Pagano TB, Orefice NS, Meli R, Calignano A. (2013). N-Palmitoylethanolamide protects the kidney from hypertensive injury in spontaneously hypertensive rats via inhibition of oxidative stress. *Pharmacological Research*, 2;76C: 67-76
37. Fusco F, D'Anzeo G, Sessa A, Pace G, Rossi A, Capece M, d'Emmanuele di Villa Bianca R. (2013). BPH/LUTS and ED: Common Pharmacological Pathways for a Common Treatment. *Journal of Sexual Medicine*, 10(10): 2382-2393
38. Fusco F, D'Anzeo G, Rossi A, Sciorio C, Buonomo AR, d'Emmanuele di Villa Bianca R, Borgia G, Mirone V, Gentile I. (2013). Erectile dysfunction in patients with chronic viral hepatitis: a systematic review of the literature. *Expert Opinion on Pharmacotherapy*, 14(18): 2533-44
39. Brancaleone V, Vellecco V, Matassa D, d'Emmanuele di Villa Bianca R, Sorrentino R, Ianaro A, Bucci M, Esposito F, Cirino G. (2015). Crucial role of androgen receptor in vascular H₂S biosynthesis induced by testosterone *British Journal of Pharmacology*, 172(6): 1505-15
40. d'Emmanuele di Villa Bianca R, Mitidieri E, Donnarumma E, Tramontano T, Brancaleone V, Cirino G, Bucci M, Sorrentino R. (2015). Hydrogen Sulfide is involved in dexamethasone-induced hypertension in rat. *Nitric Oxide-Biology and Chemistry*, 46:80-6
41. Roberta d'Emmanuele di Villa Bianca, Emma Mitidieri, Erminia Donnarumma, Ferdinando Fusco, Nicola Longo, Giuseppe De Rosa, Ettore Novellino, Paolo Grieco, Vincenzo Mirone, Giuseppe Cirino, Raffaella Sorrentino (2015). A new therapeutic approach to erectile dysfunction: urotensin II receptor high affinity agonist ligands. *Asian Journal of Andrology*, 17(1): 81-85
42. Mattace Raso G, Pirozzi C, d'Emmanuele di Villa Bianca R, Simeoli R, Santoro A, Lama A, Di Guida F, Russo R, De Caro C, Sorrentino R, Calignano A, Meli R. (2015). Palmitoylethanolamide treatment reduces blood pressure in spontaneously hypertensive rats: involvement of cytochrome p450-derived eicosanoids and Renin Angiotensin system. *PLoS One*, 10(5): e0123602
43. Renga Barbara, Bucci Mariarosaria, Cipriani Sabrina, D'Amore Claudio, Monti Maria Chiara, Angela Zampella, Gargiulo Antonella, d'Emmanuele di Villa Bianca Roberta, Eleonora Distrutti, and Stefano Fiorucci. (2015). Cystationine γ -liase, a H₂S generating enzyme, is a GPBAR1 regulated gene and 3

contribute to vasodilation caused by secondary bile acids. *American Journal of Physiology-Heart and Circulatory Physiology*, 309(1): H114-126

44. Costabile G, d'Angelo I, Rampioni G, Bondi R, Pompili B, Ascenzioni F, Mitidieri E, d'Emmanuele di Villa Bianca R, Sorrentino R, Miro A, Quaglia F, Imperi F, Leoni L, Ungaro F. (2015). Toward Repositioning Niclosamide for Antivirulence Therapy of *Pseudomonas aeruginosa* Lung Infections: Development of Inhalable Formulations through Nanosuspension Technology. *Molecular Pharmaceutics*, 12(8): 2604-2617

45. d'Emmanuele di Villa Bianca R, Cirino G, Sorrentino R. (2015). Hydrogen Sulfide and Urogenital Tract. *Handbook of Experimental Pharmacology*, 230: 111-136.

46. d'Angelo I, Perfetto B, Costabile G, Ambrosini V, Caputo P, Miro A, d'Emmanuele di Villa Bianca R, Sorrentino R, Donnarumma G, Quaglia F, Ungaro F. (2016). Large Porous Particles for Sustained Release of a Decoy Oligonucleotide and Poly(ethylenimine): Potential for Combined Therapy of Chronic *Pseudomonas aeruginosa* Lung Infections. *Biomacromolecules*, 17(5): 1561-1571

47. Mitidieri E, Tramontano T, Donnarumma E, Brancaleone V, Cirino G, d'Emmanuele di Villa Bianca R, Sorrentino R. (2016). L-Cys/CSE/H₂S pathway modulates mouse uterus motility and sildenafil effect. *Pharmacological Research*. 111:283-289.

48. Pagliara V, Saide A, Mitidieri E, d'Emmanuele di Villa Bianca R, Sorrentino R, Russo G, Russo A. (2016). 5-FU targets rpL3 to induce mitochondrial apoptosis via cystathionine- β -synthase in colon cancer cells lacking p53. *Oncotarget* 7(31):50333-50348

49. d'Emmanuele di Villa Bianca R, Mitidieri E, Fusco F, Russo A, Pagliara V, Tramontano T, Donnarumma E, Mirone V, Cirino G, Russo G, and Sorrentino R. (2016). Urothelium muscarinic activation phosphorylates CBSSer227 via cGMP/PKG pathway causing human bladder relaxation through H₂S production. *Scientific Reports* 6:31491

50. Costabile G, d'Angelo I, d'Emmanuele di Villa Bianca R, Mitidieri E, Pompili B, Del Porto P, Leoni L, Visca P, Miro A, Quaglia F, Imperi F, Sorrentino R, Ungaro F. (2016) Development of inhalable hyaluronan/mannitol composite dry powders for flucytosine repositioning in local therapy of lung infections. *Journal of Controlled Release*. 238:80-91

51. Yetik-Anacak G, Dikmen A, Coletta C, Mitidieri E, Dereli M, Donnarumma E, d'Emmanuele di Villa Bianca R, Sorrentino R. Hydrogen sulfide compensates nitric oxide deficiency in murine corpus cavernosum. (2016) *Pharmacol Res*. 113(Pt A):38-43.

52. Mitidieri E, Tramontano T, Gurgone D, Imbimbo C, Mirone V, Fusco F, Cirino G, d'Emmanuele di Villa Bianca R, Sorrentino R. $\beta(3)$ adrenergic receptor activation relaxes human corpus cavernosum and penile artery through a hydrogen sulfide/cGMP-dependent mechanism. (2017) *Pharmacol Res*. 124:100-104

53. d'Emmanuele di Villa Bianca R, Fusco F, Mirone V, Cirino G, Sorrentino R. The role of the Hydrogen Sulfide Pathway in Male and Female Urogenital System in Health and Disease. (2017) *Antioxid Redox Signal*. 27: 654-668

54. Mitidieri E, Tramontano T, Gurgone D, Citi V, Calderone V, Brancaleone V, Katsouda A, Nagahara N, Papapetropoulos A, Cirino G, d'Emmanuele di Villa Bianca R, Sorrentino R. Mercaptopyruvate acts as endogenous vasodilator independently of 3-mercaptopyruvate sulfurtransferase activity. (2018) *Nitric Oxide*. 75:53-59

55. Merlino F, Billard É, Yousif AM, Di Maro S, Brancaccio D, Abate L, Carotenuto A, Bellavita R, d'Emmanuele di Villa Bianca R, Santicoli P, Marinelli L, Novellino E, Hébert TE, Lubell WD, Chatenet D, Grieco P. Functional Selectivity Revealed by N-Methylation Scanning of Human Urotensin II and Related Peptides. (2019) *J Med Chem*. 62:1455-1467

56. Pellosi DS, d'Angelo I, Maiolino S, Mitidieri E, d'Emmanuele di Villa Bianca R, Sorrentino R, Quaglia F, Ungaro F. In vitro/in vivo investigation on the potential of Pluronic® mixed micelles for pulmonary drug delivery. (2018) *Eur J Pharm Biopharm*. 130:30-38.

57. Mitidieri E, Gurgone D, Caiazzo E, Tramontano T, Cicala C, Sorrentino R, d'Emmanuele di Villa Bianca R. L-cysteine/cystathionine- β -synthase-induced relaxation in mouse aorta involves a L-serine/sphingosine-1-phosphate/NO pathway. (2019) *Br J Pharmacol.* 177: 734-744.
58. Mitidieri E, Cirino G, d'Emmanuele di Villa Bianca R, Sorrentino R. Pharmacology and perspectives in erectile dysfunction in man. (2020) *Pharmacol Ther.* 25:107493.
59. Mitidieri, E., Vanacore, Turnaturi, C., Sorrentino, R., d'Emmanuele di Villa Bianca, R. Uterine dysfunction in diabetic mice: the role of hydrogen sulphide. (2020) *Antioxidants.* 9: 1-15.
60. EDITORIAL ARTICLE, Vincenzo Brancaleone¹, Jesmond Dalli, Roberta d'Emmanuele di Villa Bianca, Simona Pace (2020) Role of Blood Cells in Inflammatory and Vascular Disorders, *Front. Pharmacol.*
61. Mitidieri E, Vellecco V, Brancaleone V, Vanacore D, Manzo O, Martin E, Sharina I, Krutsenko Y, Monti MC, Morretta E, Papapetropoulos A, Caliendo G, Frecentese F, Cirino G, Sorrentino R, d'Emmanuele di Villa Bianca R, Bucci M. Involvement of 3',5'-cyclic inosine monophosphate in cystathionine γ -lyase-dependent regulation of the vascular tone (2021). *Br J Pharmacol*;178(18):3765-3782.
62. Mitidieri E, Visaggio D, Frangipani E, Turnaturi C, Vanacore D, Provenzano R, Costabile G, Sorrentino R, Ungaro F, Visca P, d'Emmanuele di Villa Bianca R. Intra-tracheal administration increases gallium availability in lung: implications for antibacterial chemotherapy (2021). *Pharmacol Res.* 170:105698.
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