

**PERSONAL
INFORMATION****Mary Anna Venneri** 06-49972612 maryanna.venneri@uniroma1.it,**POSITION**

Associate Professor at Dept. of Experimental Medicine, Sapienza University of Rome, University of Rome "La Sapienza", Italy.

EDUCATION AND TRAINING

- Feb 2005:** Ph.D. in Human Oncology, University of Torino, Italy
- Nov 2000- Jan 2005:** Ph.D. Student at the Department of Biomedical Sciences and Oncology, University of Torino, Italy.
- Nov 2000:** Master degree in Biology, Department of Public Health and Microbiology, University of Torino, Italy.

WORK EXPERIENCE

- Nov 2020-Nov 2029** Achievement of National Scientific Abilitation for Full Professorship 06/N1, ASN 2018-20 ANVUR-MIUR
- Mar 2019-Today** Associate Professor at Dept. of Experimental Medicine, Sapienza University of Rome, University of Rome "La Sapienza", Italy.
- Feb 2016-Mar 2019** Tenure track research assistant professor (L.240/10 type B) at Dept. of Experimental Medicine, Sapienza University of Rome, Italy
- Feb 2013-Feb 2016** Fixed-term research assistant (L.240/10 type A) at Dept. of Experimental Medicine, Sapienza University of Rome, Italy
- Jun 2014-Jun 2018** Achievement of National Scientific Abilitation for associate Professorship 06/N1, ASN 2012 ANVUR-MIUR
- Apr 2012-Jan 2013** Post-Doctoral at Dept. of Experimental Medicine, Sapienza University of Rome, Italy
- Nov 2009 – Jul 2011** Post-Doctoral fellow at the National Institute of Health, Department of Hematology, Oncology and Molecular Medicine, Rome (ISS-EOMM), Italy.
- Mar 2005 – Nov 2009** Post-Doctoral fellow at the San Raffaele-Telethon Institute for Gene Therapy (HSR-TIGET), Milan, Italy

RESEARCH ACTIVITIES

Keywords: Angiogenesis, Inflammation, Cancer, Diabetic Complications, Adrenal Disorders.

She contributed to characterize the pro-angiogenic functions of tumor-homing monocytes and develop gene transfer strategies for reprogramming them into anti-tumoral immune cells. She investigated the origin and biological function of these cells, which selectively engage in tissue remodeling and regeneration. Mary's work has led to first-in-kind clinical trials of engineered monocytes in patients with brain and haematological cancers. Her recent major contributions in clinical research was on the syndromes of steroid hormones defect, specifically Adrenal Insufficiency, and on Hypoparathyroidism supporting the strong interplay between the endocrine and immune system. Her current contributions are on the various aspects of endocrine-neuro-immune connections to prove an updated panorama - from basics to clinical applications - of current knowledge.

SUMMARY OF SCIENTIFIC ACHIEVEMENTS

Product type	Number	Data Base	Start	End
Papers [international]	45	PubMed, Scopus, ISI Web of Science	2003	2021
Books [scientific]	1	Springer	2012	
Patents	1	Patent number: US 7,833,789,B2	2010	
Total Impact factor	up to 511			
Total Citations	4100 (scopus)			
Hirsch (H) index	22 (scopus)			

PUBLICATIONS

45. Tortolini C, Capecchi E, Tasca F, Pofi R, **Venneri MA**, Saladino R, Antiochia R. Novel Nanoarchitectures Based on Lignin Nanoparticles for Electrochemical Eco-Friendly Biosensing Development. **Nanomaterials (Basel)**. 2021 Mar 12;11(3):718. doi: 10.3390/nano11030718.

44. Baldassarri M, Picchiotti N, Fava F, Fallerini C, Benetti E, Daga S, Valentino F, Doddato G, Furini S, Giliberti A, Tita R, Amitrano S, Bruttini M, Croci S, Meloni I, Pinto AM, Iuso N, Gabbi C, Sciarra F, **Venneri MA**, Gori M, Sanarico M, Crawley FP, Pagotto U, Fanelli F, Mezzullo M, Dominguez-Garrido E, Planas-Serra L, Schlüter A, Colobran R, Soler-Palacin P, Lapunzina P, Tenorio J, Pujol A, Castagna MG, Marcelli M, Isidori AM, Renieri A, Frullanti E, Mari F; Spanish Covid HGE, GEN-COVID Multicenter Study. Shorter androgen receptor polyQ alleles protect against life-threatening COVID-19 disease in European males. **EBioMedicine**. 2021 Mar;65:103246. doi: 10.1016/j.ebiom.2021.103246. Epub 2021 Feb 26.

43. Puliani G, Hasenmajer V, Sciarra F, Barbagallo F, Sbardella E, Pofi R, Gianfrilli D, Romagnoli E, **Venneri MA***, Isidori AM*. Impaired Immune Function in Patients With Chronic Postsurgical Hypoparathyroidism: Results of the EMPATHY Study. **J Clin Endocrinol Metab**. 2021 Apr 23;106(5):e2215-e2227. doi: 10.1210/clinem/dgab038. * equal contribution

42. Pofi R, Giannetta E, Galea N, Francone M, Campolo F, Barbagallo F, Gianfrilli D, **Venneri MA**, Filardi T, Cristini C, Antonini G, Badagliacca R, Frati G, Lenzi A, Carbone I, Isidori AM Diabetic Cardiomyopathy Progression is Triggered by miR122-5p and Involves Extracellular Matrix: A 5-Year Prospective Study. **JACC Cardiovasc Imaging**. 2020 Nov 18;S1936-878X(20)30916-5. doi:

10.1016/j.jcmg.2020.10.009.

41. Negri M, Pivonello C, Simeoli C, Di Gennaro G, **Venneri MA**, Sciarra F, Ferrigno R, de Angelis C, Sbardella E, De Martino MC, Colao A, Isidori AM, Pivonello R. Cortisol Rhythm and Insulin Resistance in Muscle: *EFFECT OF DOSING AND TIMING OF HYDROCORTISONE EXPOSURE ON INSULIN SENSITIVITY IN SYNCHRONIZED MUSCLE CELLS*. **Neuroendocrinology**. 2020 Oct 30. doi: 10.1159/000512685.
40. Isidori AM, Giannetta E, Pofi R, **Venneri MA**, Gianfrilli D, Campolo F, Mastroianni CM, Lenzi A, d'Ettorre G. *Targeting the NO-cGMP-PDE5 pathway in COVID-19 infection. The Dedalo Project*. **Andrology**. 2020 Jun 11. doi: 10.1111/andr.12837.
39. Sciarra F, Franceschini E, Campolo F, Gianfrilli D, Pallotti F, Paoli D, Isidori AM, **Venneri MA**. *Disruption of Circadian Rhythms: A Crucial Factor in the Etiology of Infertility*. **Int J Mol Sci**. 2020 May 30;21(11):E3943. doi: 10.3390/ijms21113943.
38. Muscogiuri G, Altieri B, Albertelli M, Dotto A, Modica R, Barrea L, Fanciulli G, Feola T, Baldelli R, Ruggeri RM, Gallo M, Guarnotta V, Malandrino P, Messina E, **Venneri MA**, Giannetta E, Ferone D, Colao A, Faggiano A; NIKE group. *Epidemiology of pancreatic neuroendocrine neoplasms: a gender perspective*. **Endocrine**. 2020 May 28. doi: 10.1007/s12020-020-02331-3.
37. Hasenmajer V, Sbardella E, Sciarra F, Minnetti M, Isidori AM, **Venneri MA**. *The Immune System in Cushing's Syndrome*. **Trends Endocrinol Metab**. 2020 May 6:S1043-2760(20)30081-3. doi: 10.1016/j.tem.2020.04.004
36. Minnetti M, Hasenmajer V, Pofi R, **Venneri MA**, Alexandraki KI, Isidori AM. *Fixing the broken clock in adrenal disorders: focus on glucocorticoids and chronotherapy*. **J Endocrinol**. 2020 Aug;246(2):R13-R31. doi: 10.1530/JOE-20-0066.
35. Isidori AM, Arnaldi G, Boscaro M, Falorni A, Giordano C, Giordano R, Pivonello R, Pofi R, Hasenmajer V, **Venneri MA**, Sbardella E, Simeoli C, Scaroni C, Lenzi A. *COVID-19 infection and glucocorticoids: update from the Italian Society of Endocrinology Expert Opinion on steroid replacement in adrenal insufficiency*. **J Endocrinol Invest**. 2020 Apr 25:1-7. doi: 10.1007/s40618-020-01266-w.
34. Muscogiuri G, Barrea L, Feola T, Gallo M, Messina E, **Venneri MA**, Faggiano A, Colao A; NIKE (Neuroendocrine Tumors, Innovation inKnowledge and Education) Group. *Pancreatic Neuroendocrine Neoplasms: Does Sex Matter?* **Trends Endocrinol Metab**. 2020. doi: 10.1016/j.tem.2020.02.010
33. Raparelli V, Romiti GF, Spugnardi V, Borgi M, Cangemi R, Basili S, Proietti M; The **Eva Collaborative Group**. *Gender-Related Determinants of Adherence to the Mediterranean Diet in Adults with Ischemic Heart Disease*. **Nutrients**. 2020 Mar 13;12(3):759. doi: 10.3390/nu12030759.
32. Sbardella E, Tenuta M, Sirgiovanni G, Gianfrilli D, Pozza C, **Venneri MA**, Cortesi E, Marchetti P, Lenzi A, Gelibter AJ, Isidori AM. *Thyroid disorders in programmed death 1 inhibitor-treated patients: Is previous therapy with tyrosine kinase inhibitors a predisposing factor?* **Clin Endocrinol (Oxf)**. 2019. doi: 10.1111/cen.14135.
31. **Venneri MA**, Barbagallo F, Fiore D, De Gaetano R, Giannetta E, Sbardella E, Pozza C, Campolo F, Naro F, Lenzi A, Isidori AM. *PDE5 Inhibition Stimulates Tie2-Expressing Monocytes and Angiopoietin-1 Restoring Angiogenic Homeostasis in Diabetes*. **J Clin Endocrinol Metab**. 2019 Jul 1;104(7):2623-2636. doi: 10.1210/je.2018-02525.
30. Raparelli V, Proietti M, Romiti GF, Lenzi A, Basili S; **EVA Collaborative Group**. *The Sex-Specific Detrimental Effect of Diabetes and Gender-Related Factors on Pre-admission Medication Adherence Among Patients Hospitalized for Ischemic Heart Disease: Insights*

From EVA Study. **Front Endocrinol (Lausanne)**. 2019 Feb 25;10:107. doi: 10.3389/fendo.2019.00107. eCollection 2019.

29. Pedrinolla A, Venturelli M, Tamburin S, Fonte C, Stabile AM, Galazzo IB, Ghinassi B, **Venneri MA**, Pizzini FB, Muti E, Smania N, Di Baldassarre A, Naro F, Rende M, Schena F. *Non- β -Dependent Factors Associated with Global Cognitive and Physical Function in Alzheimer's Disease: A Pilot Multivariate Analysis*. **J Clin Med**. 2019. doi: 10.3390/jcm8020224.

28. Graziadio C, Hasenmajer V, **Venneri MA**, Gianfrilli D, Isidori AM, Sbardella E. *Glycometabolic Alterations in Secondary Adrenal Insufficiency: Does Replacement Therapy Play a Role?* **Front Endocrinol (Lausanne)**. 2018 Aug 3;9:434. doi: 10.3389/fendo.2018.00434. eCollection 2018. Review.

27. **Venneri MA**, Hasenmajer V, Fiore D, Sbardella E, Pofi R, Graziadio C, Gianfrilli D, Pivonello C, Negri MR, Naro F, Grossman AB, Lenzi A, Pivonello R, Isidori AM. *Circadian rhythm of glucocorticoid administration entrains clock genes in immune cells: a DREAM trial ancillary study*. **J Clin Endocrinol Metab**. 2018. doi.org/10.1210/jc.2018-00346

26. Fiore D, Gianfrilli D, Cardarelli S, Naro F, Lenzi A, Isidori AM, **Venneri MA**. *Chronic phosphodiesterase type 5 inhibition has beneficial effects on subcutaneous adipose tissue plasticity in type 2 diabetic mice*. **J Cell Physiol**. 2018 doi.org/10.1002/jcp.26796

25. Isidori AM, Hasenmajer V, **Venneri MA**. *Once-daily, modified-release hydrocortisone in patients with adrenal insufficiency - Authors' reply*. *Lancet Diabetes Endocrinol*. 2018 doi: 10.1016/S2213-8587(18)30040-8.

24. Sbardella E, Minnetti M, D'Aluisio D, Rizza L, Di Giorgio MR, Vinci F, Pofi R, Giannetta E, **Venneri MA**, Vestri A, Morelli S, Lenzi A, Isidori AM. *Cardiovascular features of possible autonomous cortisol secretion in patients with adrenal incidentalomas*. **Eur J Endocrinol**. 2018. doi: 10.1530/EJE-17-0986.

23.*Isidori AM, ***Venneri MA**, Graziadio C, Simeoli C, Fiore D, Hasenmajer V, Sbardella E, Gianfrilli D, Pozza C, Pasqualetti P, Morrone S, Santoni A, Naro F, Colao A, Pivonello R, Lenzi A. *Effect of once-daily, modified-release hydrocortisone versus standard glucocorticoid therapy on metabolism and innate immunity in patients with adrenal insufficiency (DREAM): a single-blind, randomised controlled trial*. **Lancet Diabetes Endocrinol**. 2018 Mar;6(3):173-185. * **equal contribution**

22. Zini C, **Venneri MA**, Miglietta S, Caruso D, Porta N, Isidori AM, Fiore D, Gianfrilli D, Petrozza V, Laghi A. *USPIO-labeling in M1 and M2-polarized macrophages: An in vitro study using a clinical magnetic resonance scanner*. **J Cell Physiol**. 2017 Dec 12

21. Pofi R, Fiore D, De Gaetano R, Panio G, Gianfrilli D, Pozza C, Barbagallo F, Xiang YK, Giannakakis K, Morano S, Lenzi A, Naro F, Isidori AM, **Venneri MA**. *Phosphodiesterase-5 inhibition preserves renal hemodynamics and function in mice with diabetic kidney disease by modulating miR-22 and BMP7*. **Sci Rep**. 2017 Mar 15;7:44584.

20. Isidori AM, **Venneri MA**, Fiore D. *Angiopoietin-1 and Angiopoietin-2 in metabolic disorders: therapeutic strategies to restore the highs and lows of angiogenesis in diabetes*. **J Endocrinol Invest**. 2016 Nov;39(11):1235-1246. Review.

19. Di Siena S, Gimmelli R, Nori SL, Barbagallo F, Campolo F, Dolci S, Rossi P, **Venneri MA**, Giannetta E, Gianfrilli D, Feigenbaum L, Lenzi A, Naro F, Cianflone E, Mancuso T, Torella D, Isidori AM, Pellegrini M. *Activated c-Kit receptor in the heart promotes cardiac repair and regeneration after injury*. **Cell Death Dis**. 2016 Jul 28;7(7):e2317.

18. Fiore D, Gianfrilli D, Giannetta E, Galea N, Panio G, di Dato C, Pofi R, Pozza C, Sbardella E, Carbone I, Naro F, Lenzi A, **Venneri MA**, Isidori AM. *PDE5 Inhibition*

Ameliorates Visceral Adiposity Targeting the miR-22/SIRT1 Pathway: Evidence From the CECSID Trial. J Clin Endocrinol Metab. **2016** Apr;101(4):1525-34.

17. Mandosi E, Giannetta E, Filardi T, Lococo M, Bertolini C, Fallarino M, Gianfrilli D, **Venneri MA**, Lenti L, Lenzi A, Morano S. *Endothelial dysfunction markers as a therapeutic target for Sildenafil treatment and effects on metabolic control in type 2 diabetes. Expert Opin Ther Targets.* **2015**;19(12):1617-22. doi: 10.1517/14728222.2015.1066337.

16. Pofi R, Gianfrilli D, Badagliacca R, Di Dato C, **Venneri MA**, Giannetta E. *Everything you ever wanted to know about phosphodiesterase 5 inhibitors and the heart (but never dared ask): How do they work? J Endocrinol Invest.* **2016** Feb;39(2):131-42. doi: 10.1007/s40618-015-0339-y. Review.

15. **Venneri MA**, Giannetta E, Panio G, De Gaetano R, Gianfrilli D, Pofi R, Masciarelli S, Fazi F, Pellegrini M, Lenzi A, Naro F, Isidori AM. *Chronic Inhibition of PDE5 Limits Pro-Inflammatory Monocyte-Macrophage Polarization in Streptozotocin-Induced Diabetic Mice. PLoS One.* **2015** May 11;10(5):e0126580. doi: 10.1371/journal.pone.0126580.

14. Capobianco A, Monno A, Cottone L, **Venneri MA**, Bizziato D, Di Puppò F, Ferrari S, De Palma M, Manfredi AA, Rovere-Querini P. *Proangiogenic Tie2(+) macrophages infiltrate human and murine endometriotic lesions and dictate their growth in a mouse model of the disease. Am J Pathol.* **2011** Nov;179(5):2651-9. doi: 10.1016/j.ajpath.2011.07.029.

13. Musumeci M, Coppola V, Addario A, Patrizii M, Maugeri-Saccà M, Memeo L, Colarossi C, Francescangeli F, Biffoni M, Collura D, Giacobbe A, D'Urso L, Falchi M, **Venneri MA**, Muto G, De Maria R, Bonci D. *Control of tumor and microenvironment cross-talk by miR-15a and miR-16 in prostate cancer. Oncogene.* **2011** Oct 13;30(41):4231-42. doi: 10.1038/onc.2011.140

12. Casazza A, Fu X, Johansson I, Capparuccia L, Andersson F, Giustacchini A, Squadrito ML, **Venneri MA**, Mazzone M, Larsson E, Carmeliet P, De Palma M, Naldini L, Tamagnone L, Rolny C. *Systemic and targeted delivery of semaphorin 3A inhibits tumor angiogenesis and progression in mouse tumor models. Arterioscler Thromb Vasc Biol.* **2011** Apr;31(4):741-9. doi: 10.1161/ATVBAHA.110.211920.

11. Zeuner A, Francescangeli F, Signore M, **Venneri MA**, Pedini F, Felli N, Pagliuca A, Conticello C, De Maria R. *The Notch2-Jagged1 interaction mediates stem cell factor signaling in erythropoiesis. Cell Death Differ.* **2011** Feb;18(2):371-80. doi: 10.1038/cdd.2010.110.

10. *Pucci F, ***Venneri MA**, Bizziato D, Nonis A, Moi D, Sica A, Di Serio C, Naldini L, De Palma M. *A distinguishing gene signature shared by tumor-infiltrating Tie2-expressing monocytes, blood "resident" monocytes, and embryonic macrophages suggests common functions and developmental relationships. Blood.* **2009** Jul 23;114(4):901-14. doi: 10.1182/blood-2009-01-200931. * equal contribution

9. De Palma M, Mazzieri R, Politi LS, Pucci F, Zonari E, Sitta G, Mazzoleni S, Moi D, **Venneri MA**, Indraccolo S, Falini A, Guidotti LG, Galli R, Naldini L. *Tumor-targeted interferon-alpha delivery by Tie2-expressing monocytes inhibits tumor growth and metastasis. Cancer Cell.* **2008** Oct 7;14(4):299-311. doi: 10.1016/j.ccr.2008.09.004.

8. De Palma M, Murdoch C, **Venneri MA**, Naldini L, Lewis CE. *Tie2-expressing monocytes: regulation of tumor angiogenesis and therapeutic implications. Trends Immunol.* **2007** Dec;28(12):519-24. Review.

7. Capotondo A, Cesani M, Pepe S, Fasano S, Gregori S, Tononi L, **Venneri MA**, Brambilla R, Quattrini A, Ballabio A, Cosma MP, Naldini L, Biffi A. *Safety of arylsulfatase A overexpression for gene therapy of metachromatic leukodystrophy. Hum Gene Ther.* **2007**

Sep;18(9):821-36.

6. **Venneri MA**, De Palma M, Ponzoni M, Pucci F, Scielzo C, Zonari E, Mazzieri R, Doglioni C, Naldini L.

*Identification of proangiogenic TIE2-expressing monocytes (TEMs) in human peripheral blood and cancer. **Blood.** 2007 Jun 15;109(12):5276-85.*

5. Brown BD, **Venneri MA**, Zingale A, Sergi L, Naldini L. *Endogenous microRNA regulation suppresses transgene expression in hematopoietic lineages and enables stable gene transfer. **Nat Med.** 2006 May;12(5):585-91.*

4. *De Palma M, ***Venneri MA**, Galli R, Sergi L, Politi LS, Sampaolesi M, Naldini L. *Tie2 identifies a hematopoietic lineage of proangiogenic monocytes required for tumor vessel formation and a mesenchymal population of pericyte progenitors. **Cancer Cell.** 2005 Sep;8(3):211-26. * equal contribution*

3. Amendola M, **Venneri MA**, Biffi A, Vigna E, Naldini L. *Coordinate dual-gene transgenesis by lentiviral vectors carrying synthetic bidirectional promoters. **Nat Biotechnol.** 2005 Jan;23(1):108-16.*

2. *De Palma M, ***Venneri MA**, Naldini L. *In vivo targeting of tumor endothelial cells by systemic delivery of lentiviral vectors. **Hum Gene Ther.** 2003 Aug 10;14(12):1193-206. * equal contribution*

1. De Palma M, **Venneri MA**, Roca C, Naldini L. *Targeting exogenous genes to tumor angiogenesis by transplantation of genetically modified hematopoietic stem cells. **Nat Med.** 2003 Jun;9(6):789-95.*

1. Francesca Pedini, **Mary Anna Venneri**, Ann Zeuner Hematopoietic Stem/Progenitor Cells: Response to Chemotherapy. **Stem Cells and Cancer Stem Cells**, Volume 6, 01/2012: pages 333-344; , ISBN: 978-94-007-2992-6

BOOK CHAPTER:

1. Title: "Monocyte Cell" (Identification and Targeting of human TEMs). Inventors: Luigi Naldini, Michele De Palma, **Mary Anna Venneri**. Applicant: Fondazione Centro San Raffaele del Monte Tabor (50%), Fondazione Telethon (50%). US provisional No. 60/821,059 filed Aug. 1, 2006 US serial No. 11/831,248 filed Jul. 31, 2007.

PATENTS

EDITORIAL ACTIVITIES:

REVIEWER FOR INTERNATIONAL SCIENTIFIC PEER-REVIEWED JOURNAL (Cancer Research, British Journal of Cancer, Int J of Cancer, Diabetes Res and Clin Pract, Int J Obes, Oncotarget, PlosOne).

RESEARCH GRANTS

2017 PRIN # 2017S55RXB_005

TEACHING ACTIVITY

2013-2015:Teaching activity educational, interactive and research internship for Medicine, Biological and Biotechnology Sciences degree

2016-TODAY TEACHING ACTIVITY EDUCATIONAL AT BIOMEDICAL LABORATORY TECHNICIAN AND MEDICINE, COD. 1035192, COD. 1035175, COD. 30896.

SUPERVISION OF
GRADUATE STUDENTS
AND POSTDOCTORAL
FELLOWS

- Post-docs: 2; • PhD students: 5 (3 to completion of doctoral program). • Master students: 6.

I authorise the processing of my personal data for personnel research and selection purposes under D.Lgs. n.196 of 30/06/2003.

September, 2021