

**PERSONAL
INFORMATION**

Sara Perrotta

POSITIONS

01/01/2018 - 31/12/2022 **Research fellow (Assegnista di ricerca) on ERC – Starting Grant project SymPAthY** “A neurosplenic pathway coupling Immunity and Hypertension”, PI Prof. Daniela Carnevale, at the Department of Molecular Medicine, “Sapienza” University of Rome (Winner of the procedure n. 2021/2017 dated 21/11/17 code: B_I_Sym)

Research activity: (1) Investigation of the involvement of the PlGF/Neuropilin-1 pathway in the modulation of the immune response in murine model of hypertension. Aims of this research were identify the cell type producing and responding to PlGF in the spleen and test the hypothesis that Neuropilin-1 could be involved in the maturation of monocytes-derived dendritic cells and in co-stimulation pathway in relation to PlGF signaling modulation in both in vivo and in vitro experiments.

(2) Investigation of the involvement of the PI3K γ pathway in the activation of CD8 T lymphocytes and whether these immune cells are determinants of vascular dysfunction that occurs in hypertension.

01/04/2015 - 30/11/2015 **Research fellow at the Department of Clinical and Molecular Medicine, “Sapienza” University of Rome**, under the supervision of Prof. Maurizio Taurino (Winner of the procedure n. 5/15 Prot. 165/15 dated 20/02/2015 of 8 months of fellowship for research activity).

Research activity: “Macrophages and atherosclerosis: evaluation of macrophage subpopulations in patients affected by carotid stenosis and Stanford-A acute aortic dissection through imaging techniques and in vitro sampling”

EDUCATION AND TRAINING

19/02/2019 **PhD in Experimental Medicine at the Department of Clinical and Molecular Medicine, “Sapienza” University of Rome**

Tutor: Prof. Maurizio Taurino, “Sant’Andrea” Hospital of Rome; Department of Clinical and Molecular Medicine, “Sapienza” University of Rome.

Research activity: study of the lymphocytes and monocyte subsets in patients with symptomatic and asymptomatic carotid artery stenosis and in patients with Stanford A acute aortic dissection versus subjects with traditional cardiovascular risk factors such as hypertension, dyslipidemia, diabetes and smoke. The frequency of lymphocytes and monocytes subsets was determined by flow cytometry and by immunohistochemistry. Interleukin levels were measured by ELISA.

Research activity was performed at the Department of Biology and Biotechnology

“Charles Darwin”, “Sapienza” University of Rome.

Results of this research have been presented in the degree thesis: “*Valutazione dei subsets linfocitari Treg e Th17 in pazienti affetti da stenosi carotidea*” and published in the article “*Regulatory T CD4+CD25+ lymphocytes increase in symptomatic carotid artery stenosis*. Del Porto F, Cifani N, Proietta M, **Perrotta S**, Dito R, Di Gioia C, Carletti R, Rizzo L, Orgera G, Rossi M, Ferri L, Tritapepe L, Taurino M. *Annals of Medicine*, 2017 Jun;49(4):283-290”.

27/01/2015 Degree in Medical Biotechnology, Bioingegneristic curriculum [LM (DM 270/04) – ORDIN. 2012]; (classe LM-9), “Sapienza” University of Rome, final mark 110 cum laude/110.

2013 - 2015 Internship at the Department of Biology and Biotechnology “Charles Darwin”, “Sapienza” University of Rome under the supervision of Prof. Maurizio Taurino and Prof. Flavia Del Porto.

Director of the laboratory: Prof. Paola Del Porto

Principal investigator of the project: Prof. Maurizio Taurino, Department of Clinical and Molecular Medicine, Department of Vascular Surgery, “Sant’Andrea” Hospital of Rome, “Sapienza” University of Rome.

Research activity: the study regarded the correlation between the ratio of anti-inflammatory Treg lymphocytes and pro-inflammatory T helper 17 lymphocytes in patients with carotid artery stenosis versus subjects with traditional cardiovascular risk factors. The frequency of the lymphocytes subsets was determined by flow cytometry; interleukin (IL)-17, IL-10 and metalloproteinase (MMP)-12 levels were measured by ELISA assay.

12/11/2012 Degree in Biotechnology [L (DM 509/99)]; (classe 1), “Sapienza” University of Rome, final mark 105/110.

2012 Internship at Department of Biology and Biotechnology “Charles Darwin”, “Sapienza” University of Rome.

Director of the laboratory: Prof. Ada Maria Tata.

Research activity: the study regarded the homeostasis of the cholinergic system in relation to levels of immune cells in patients with Multiple Sclerosis. We investigated if the cause of the decrease of Acetylcholine levels in serum and cerebrospinal liquid of patients with Multiple Sclerosis is due to the activity of the hydrolyzing enzymes acetylcholinesterase (AChE) and butyrylcholinesterase (BuChE) or of the ACh biosynthetic enzyme and the protein carriers involved in non-vesicular ACh release. The frequency of the enzymes and cholinergic markers was determined by RT-PCR and colorimetric assay of Ellman.

Results of this research have been presented in the degree thesis: “*Espressione di marcatori colinergici nel siero e nel liquido cerebrospinale di pazienti affetti da Sclerosi Multipla*”.

2006 High School Diploma in Scientific Studies, Liceo Scientifico “Alfano da Termoli”, Termoli (CB), final mark 84/100.

TRAINING COURSE ATTENDANCES

2018 BD Influx Operator Course, 19-23/03/2018, Training Center BD Bioscience, BD Belelux, Erembodegem, Belgium

PERSONAL SKILLS

Mother tongue Italian

Other languages

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
Certificate from the British Centre, Rome					

JOB-RELATED SKILLS

- Flow cytometric immunophenotype analysis with BD FACS Celesta BD FACS Canto, BD FACS Calibur, and cell sorting with BD Influx Cell Sorter;
- isolation of cells from mouse tissues (spleen, bone marrow, heart, kidneys, aorta, brain, adipose tissue) for flow cytometric immunophenotype analysis with BD FACS Calibur, BD FACS Canto, BD FACS Celesta;
- isolation of cells from mouse tissues for cell sorting with BD Influx Cell Sorter;
- isolation of cells from mouse tissues for immunophenotype analysis by immunocytochemical study;
- isolation of Peripheral Blood Mononuclear Cells (PBMC) from human peripheral blood for flow cytometric immunophenotype analysis;
- isolation of cells from mouse tissues for cells culture study;
- confocal and light microscopy analysis;
- ELISA assay;
- cell metabolism analysis with Seahorse XF HS Mini from Agilent.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Independent user	Independent user

Software Microsoft Office applications, GraphPad PRISM, BD CellQuest Pro, BD FACS Diva Software, BD FACS Software Software, FlowJo Software, Image J, Adobe Photoshop

Driving licence B

CONFERENCE ATTENDANCES

- 2022 American Heart Association's Scientific Sessions 2022, Chicago, Illinois, 4-8 November 2022
- 2022 39th National Congress of the Italian Society of Hypertension (SIIA), 6-8 October 2022, Rome
- 2021 38th National Congress of the Italian Society of Hypertension (SIIA), Digital edition, 30 September-2 October 2021, Bologna
- 2020 37th National Congress of the Italian Society of Hypertension (SIIA), Digital edition, 1-3 October 2020, Bologna
- 2019 36th National Congress of the Italian Society of Hypertension (SIIA), 27-29 September 2019, Rome
- 2018 35th National Congress of the Italian Society of Hypertension (SIIA), 27-29 September 2018, Rome
- 2017 8th Biology and Molecular Medicine "BeMM" Symposium, 20 November 2017, Rome
- 2016 7th Biology and Molecular Medicine "BeMM" Symposium, 18 November 2016, Rome
- 2016 117th National Congress of the Italian Society of Internal Medicine, 14-16 October 2016, Rome
- 2015 116th National Congress of the Italian Society of Internal Medicine, 10-12 October 2015, Rome

CONFERENCE PRESENTATIONS

- 2022 *Poster presentation, American Heart Association's Hypertension Scientific Sessions 2022, Chicago, Illinois.*

- PI3K γ signalling is crucial for regulating the cross talk between CD8 T lymphocytes and vasculature in hypertension.* Perrotta M, **Perrotta S**, Pallante F, Carnevale L, Migliaccio A, Fardella S, Lembo G, Carnevale D.
- 2022 *Poster presentation, 39th National Conference of the Italian Society of Hypertension (SIIA), Rome.*
PlGF mediates a cardiac-neuro-immune axis that controls adaptation to cardiac stress through cardiac macrophages. **Perrotta S**, Carnevale R, Carnevale L, Perrotta M, Mastroiacovo F, Pallante F, Lembo G, Carnevale D.
- 2021 *Oral presentation, 38th National Conference of the Italian Society of Hypertension (SIIA), Bologna.*
Cardiac pressure overload induces the expression of Placental Growth Factor in the spleen where it is necessary to allow the recruitment of reparative macrophages in the left ventricle. **Perrotta S**, Carnevale R, Pallante F, Mastroiacovo F, Cifelli G, Lembo G, Carnevale D.
- 2020 *Poster presentation, 37th National Conference of the Italian Society of Hypertension (SIIA), Bologna.*
Cardiac remodeling induced by pressure overload activates a neuroimmune mechanism in the spleen which through PlGF induces the recruitment of adaptive macrophages into the left cardiac ventricle. **Perrotta S**, Carnevale R, Pallante F, Mastroiacovo F, Cifelli G, Lembo G, Carnevale D.
- 2019 *Poster presentation, 36th National Conference of the Italian Society of Hypertension (SIIA), Rome.*
Adaptive cardiac remodeling to chronic pressure overload requires the expression of Placental Growth Factor in the spleen and deployment of adaptive/reparative macrophages to the left ventricle. **Perrotta S**, Iacobucci R, Carnevale L, Fardella V, Carnevale R, Pallante F, Lembo G, Carnevale D.
- 2018 *Poster presentation, 35th National Conference of the Italian Society of Hypertension (SIIA), Rome.*
Characterization of molecular mechanisms activated by the splenic immune reservoir to establish adaptive cardiac remodeling to pressure overload. **Perrotta S**, Cifelli G, Carnevale R, Lembo G, Carnevale D.
- 2016 *Poster presentation, 117th National Conference of Italian Society of Internal Medicine (SIMI), Rome.*
Monocyte subsets and atherosclerosis. Cifani N, Ferri L, **Perrotta S**, Iaconi M, Dito R, Tritapepe L, Proietta M, Bruno G, Taurino M, Del Porto F.
- 2015 *Poster presentation, 116th National Conference of Italian Society of Internal Medicine (SIMI), Rome.*

T helper 17 and critical carotid artery stenosis. **Perrotta S**, Cifani N, Iaconi M, Ferri L, Orgera G, Guaragna M, Proietta M, Bruno G, Taurino M, Del Porto F.

ABSTRACTS

- 2022 *PI3K γ signalling is crucial for regulating the cross talk between CD8 T lymphocytes and vasculature in hypertension.*
Perrotta M, **Perrotta S**, Pallante F, Carnevale L, Migliaccio A, Fardella S, Lembo G, Carnevale D. American Heart Association's Scientific Sessions 2022, Chicago, Illinois, 4-7 November 2022
- 2022 *Subfornical Organ And Paraventricular Nucleus Of Hypothalamus Are Involved In Angiotensin II Activation Of Splenic Immunity And Hypertension*
Perrotta M, Carnevale L, **Perrotta S**, Pallante F, Mastroiacovo F, Fardella V, Lembo G, Carnevale D. American Heart Association's Scientific Sessions 2022, Chicago, Illinois, 4-7 November 2022
- 2022 *PI3K γ signalling is crucial for regulating the cross talk between CD8 T lymphocytes and vasculature in hypertension.*
Perrotta M, **Perrotta S**, Pallante F, Carnevale L, Migliaccio A, Fardella S, Lembo G, Carnevale D. American Heart Association's Hypertension Council on Hypertension Scientific Sessions 2022, San Diego, California, 7-10 September 2022
- 2022 *PlGF mediates a cardiac-neuro-immune axis that controls adaptation to cardiac stress through cardiac macrophages.*
Perrotta S, Carnevale R, Carnevale L, Perrotta M, Mastroiacovo F, Pallante F, Lembo G, Carnevale D. 39th National Conference of the Italian Society of Hypertension (SIIA), Roma 6-8 October 2022
- 2022 *PI3K γ regulates the crosstalk between CD8 T lymphocytes and vasculature in hypertension.*
Perrotta M, **Perrotta S**, Pallante F, Carnevale L, Migliaccio A, Fardella S, Lembo G, Carnevale D. 39th National Conference of the Italian Society of Hypertension (SIIA), Roma 6-8 October 2022
- 2022 *Agtr1a receptors in neurons of the subfornical organ and the paraventricular nucleus of hypothalamus activate splenic immunity to hypertensive stimuli.*
Perrotta M, Carnevale L, Pallante F, Mastroiacovo F, **Perrotta S**, Fardella V, Lembo G, Carnevale D. 29th Scientific Meeting of the International Society of Hypertension, Kyoto, Japan 12-16 October 2022

- 2021 *Cardiac pressure overload induces the expression of Placental Growth Factor in the spleen where it is necessary to allow the recruitment of reparative macrophages in the left ventricle.*
Perrotta S, Carnevale R, Pallante F, Mastroiacovo F, Cifelli G, Lembo G, Carnevale D. 38th National Conference of the Italian Society of Hypertension (SIIA), Bologna 30 September-2 October 2021
- 2021 *3D organ culture long-term study to reproduce the immune-vascular interface between resistance arteries and immune cells, established by hypertension.*
Carnevale L, Pallante F, **Perrotta S**, Perrotta M, Carnevale D, Lembo G. 38th National Conference of the Italian Society of Hypertension (SIIA), Bologna 30 September-2 October 2021
- 2020 *Cardiac remodeling induced by pressure overload activates a neuroimmune mechanism in the spleen which through PlGF induces the recruitment of adaptive macrophages into the left cardiac ventricle.*
Perrotta S, Carnevale R, Pallante F, Mastroiacovo F, Cifelli G, Lembo G, Carnevale D. 37th National Conference of the Italian Society of Hypertension (SIIA), Bologna 1-3 October 2020.
- 2020 *Celiac vagus nerve stimulation recapitulates the activation of splenic noradrenergic pathway induced by angiotensin-II, driving CD8 effector cells egression.*
Carnevale L, Pallante F, Perrotta M, Iodice D, **Perrotta S**, Fardella S, Mastroiacovo F, Carnevale D, Lembo G. 37th National Conference of the Italian Society of Hypertension (SIIA), Bologna 1-3 October 2020.
- 2019 *VEGF-B cooperates with PlGF to modulate the splenic immune response involved in Angiotensin II induced hypertension and target organ damage.*
Perrotta M, Pallante F, Carnevale L, Iodice D, **Perrotta S**, Lembo G, Carnevale D. American Heart Association's Scientific Sessions 2019, Philadelphia, Pennsylvania, 16-18 November 2019
- 2019 *Pressure overload activates a neuroimmune mechanisms in the spleen that guides adaptive cardiac remodeling through Placental Growth Factor.*
Carnevale D, **Perrotta S**, Carnevale R, Pallante F, Carnevale L, Perrotta M, Lembo G. American Heart Association's Scientific Sessions 2019, Philadelphia, Pennsylvania, 16-18 November 2019
- 2019 *Adaptive cardiac remodeling to chronic pressure overload requires the expression of Placental Growth Factor in the spleen and deployment of adaptive/reparative macrophages to the left ventricle.*

- Perrotta S**, Iacobucci R, Carnevale L, Fardella V, Carnevale R, Pallante F, Lembo G, Carnevale D. 36th National Conference of the Italian Society of Hypertension (SIIA), Rome 27-29 September 2019
- 2019 *PlGF/VEGF-B/Neuropilin1: a Neuroimmune Mechanism Necessary for the Initiation of the Adaptive Immune Response Recruited by Angiotensin II to Induce Hypertension and Target Organ Damag.*
Carnevale D, Iodice D, **Perrotta S**, Carnevale L, Iacobucci R, Perrotta M, Pallante F, Cifelli G, Lembo G. American Heart Association's Council on Hypertension Scientific Sessions 2019, New Orleans, Luisiana, 5-8 September 2019.
- 2019 *Adaptive Cardiac Remodeling to chronic pressure overload requires the expression of PlGF in the spleen to recruit reparative macrophages to the left ventricle.*
Carnevale D, **Perrotta S**, Carnevale R, Carnevale L, Perrotta M, Pallante F, Cifelli G, Lembo G. American Heart Association's Council on Hypertension Scientific Sessions 2019, New Orleans, Luisiana, 5-8 September 2019.
- 2019 *Neuropilin1 and PlGF/VEGF-B: a novel neuroimmune pathway involved in Angiotensin II induced hypertension and target organ damage.*
Carnevale D, **Perrotta S**, Iodice D, Pallante F, Iacobucci R, Cifelli G, Lembo G. ATVB Scientific Session 2019, Boston, 14-16 May 2019.
- 2019 *PI3Kgamma regulates the cross-talk of CD8 T cells and the Vasculature in Hypertension.*
Carnevale D, Iodice D, Iacobucci R, Carnevale L, **Perrotta S**, Pallante F, Lembo G. ATVB Scientific Session 2019, Boston, 14-16 May 2019
- 2018 *Adaptive Cardiac Remodeling to Chronic Pressure Overload Requires the Expression of Placental Growth Factor in the Spleen and Deployment of Adaptive/Reparative Macrophages to the Left Ventricle.*
D. Carnevale, **S. Perrotta**, G. Cifelli, V. Fardella, R. Carnevale, G. Lembo. American Heart Association's Scientific Sessions 2018, Chicago, Illinois, 10-12 November 2018.
- 2018 *Characterization of molecular mechanisms activated by the splenic immune reservoir to establish adaptive cardiac remodeling to pressure overload.*
Perrotta S, Cifelli G, Carnevale R, Lembo G, Carnevale D. 35th National Conference of the Italian Society of Hypertension (SIIA), Rome 27-29 September 2018.

- 2018 *Activation of natural killer cells in recombination activating gene 1 null mice with angiotensin II induced hypertension.*
Liang Xiao, **Sara Perrotta**, Wei Chen, Hana A Itani, Giuseppe Lembo, Daniela Carnevale, David G Harrison. Gordon Research Conference 2018, Ventura, CA 18-23 February 2018
- 2017 *Monocyte subsets and atherosclerosis.*
Iaconi M, Cifani N, **Perrotta S**, Proietta M, Taurino M, Tritapepe L, Del Porto F. SIAARTI 2017, Rimini 18-21 October 2017.
- 2016 *Interleukin-17-related pathways are involved in carotid Atherosclerosis, but not in Stanford-A acute aortic dissection.*
Del Porto F, Cifani N, Ferri L, **Perrotta S**, Dito R, Iaconi M, Carletti R, Proietta M, Tritapepe L, di Gioia C, Taurino M. 84th EAS Conference 2016, Innsbruck, 29 May-01 June 2016.
- 2016 *Role of T helper 17 lymphocytes subpopulations in critical carotid artery stenosis.*
Proietta M, Cifani N, Del Porto F, Ferri L, Orgera G, **Perrotta S**, Dito R, Tritapepe L, Iaconi M, Taurino M. 84th EAS Conference 2016, Innsbruck, 29 May-01 June 2016.
- 2016 *Monocyte subsets and atherosclerosis.*
Cifani N, Ferri L, **Perrotta S**, Iaconi M, Dito R, Tritapepe L, Proietta M, Bruno G, Taurino M, Del Porto F. 117th National Conference of Italian Society of Internal Medicine (SIMI), Rome 14-16 October 2016.
- 2015 *T helper 17 and critical carotid artery stenosis.*
Perrotta S, Cifani N, Iaconi M, Ferri L, Orgera G, Guaragna M, Proietta M, Bruno G, Taurino M, Del Porto F. 116th National Conference of Italian Society of Internal Medicine (SIMI), Rome 2015.
- 2015 *Metalloproteinase-12 and stroke.*
Cifani N, **Perrotta S**, Iaconi M, Ferri L, Mingoia C, Orgera G, Tritapepe L, Bruno G, Taurino M, Proietta M, Del Porto F. 116th National Conference of Italian Society of Internal Medicine (SIMI), Rome 2015.
- 2015 *IL-17 in acute aortic dissection.*
Iaconi M, Cifani N, **Perrotta S**, Ferri L, Dito R, Festa C, Taurino M, Orgera G, Bruno G, Tritapepe L, Proietta M, Del Porto F. 116th National Conference of Italian Society of Internal Medicine (SIMI), Rome 2015.

SCIENTIFIC PUBLICATIONS

[Impact Factor = IF 2021 JCR Science Edition]

Total n° of publications: 5

H-index: 2

Total Impact Factor: 44.216

Mean Impact Factor: 8.843

ORCID ID 0000-0002-2903-3223

- 1 Carnevale D, Lembo G, **Perrotta S** (2022). *PI3K Isoforms in Vascular Biology, A Focus on the Vascular System-Immune Response Connection*. In: Dominguez-Villar, M. (eds) *PI3K and AKT Isoforms in Immunity*. Current Topics in Microbiology and Immunology, 2022;436:289-309. Springer, Cham. https://doi.org/10.1007/978-3-031-06566-8_12.
IF: 4.737
- 2 Carnevale D, Carnevale L, **Perrotta S**, Pallante F, Migliaccio A, Iodice D, Perrotta M, Lembo G. *Chronic 3D Vascular-Immune Interface Established by Coculturing Pressurized Resistance Arteries and Immune Cells*. Hypertension. 2021 Nov;78(5):1648-1661. doi: 10.1161/HYPERTENSIONAHA.121.17447.
IF: 9.897
- 3 **Perrotta S**, Carnevale D. *A neurohumoral activation of renin-angiotensin-aldosterone system in endothelial dysfunction modulating immunity in heart failure*. Cardiovasc Res. 2021 Jan 1;117(1):9-10. doi: 10.1093/cvr/cvaa243.
IF: 14.239
- 4 Carnevale L, Pallante F, Perrotta M, Iodice D, **Perrotta S**, Fardella S, Mastroiacovo F, Carnevale D, Lembo G. *Celiac vagus nerve stimulation recapitulates Angiotensin II-induced splenic noradrenergic activation, driving egress of CD8 effector cells*. Cell Rep. 2020 Dec 15;33(11):108494. doi: 10.1016/j.celrep.2020.108494.
IF: 9.995
- 5 Del Porto F, Cifani N, Proietta M, **Perrotta S**, Dito R, Di Gioia C, Carletti R, Rizzo L, Orgera G, Rossi M, Ferri L, Tritapepe L, Taurino M. *Regulatory T CD4+CD25+ lymphocytes increase in symptomatic carotid artery stenosis*. Ann Med. 2017 Jun;49(4):283-290. doi: 10.1080/07853890.2016.1241427.
IF: 5.348

AWARDS and GRANTS

- 2022 Winner of Paul Dudley White International Scholar Award – American Heart Association’s Hypertension Scientific Sessions 2022 in San Diego, California, USA, September 7-10, 2022. Perrotta M, **Perrotta S**, Pallante F, Carnevale L, Migliaccio A, Fardella S, Lembo G, Carnevale D. “PI3K γ Signalling Is Crucial For Regulating The Cross Talk Between CD8 T Lymphocytes And Vasculature In Hypertension”.

- 2021 Grant for scientific research "Ricerca di Ateneo 2021"
PI: Prof. Daniela Carnevale
Role: Collaborator
Research project: "*High-field MRI advanced neuroimaging characterization of cerebrovascular damage in a mouse model of hypertension-induced cognitive impairment*" granted by "Sapienza" University of Rome.
- 2020 Grant for scientific research "Ricerca di Ateneo 2020"
PI: Prof. Giuseppe Lembo
Role: Collaborator
Research project: "*Investigating the brain-to-spleen axis in hypertensive heart disease: dissection of the neural mechanisms driven by the subfornical organ in the brain circumventricular organs and promoting the splenic immune response recruited to the myocardium*" granted by "Sapienza" University of Rome.
- 2019 Winner of Paul Dudley White International Scholar Award – American Heart Association's Hypertension Scientific Sessions 2019 in New Orleans, Louisiana, USA, September 5-8, 2019. Carnevale D, **Perrotta S**, Carnevale R, Carnevale L, Perrotta M, Pallante F, Cifelli G, Lembo G. "PIGF/VEGF-B/Neuropilin1 a Neuroimmune Mechanism Necessary for the Initiation of the Adaptive Immune Response Recruited by Angiotensin II to Induce Hypertension and Target Organ Damage".
- 2019 Grant for scientific research "Ricerca di Ateneo 2019"
PI: Prof. Giuseppe Lembo
Role: Collaborator
Research project: "*Chronic hypertension-induced cerebrovascular damage: identification of novel molecular targets at the immune-vascular interface*" granted by "Sapienza" University of Rome.
- 2018 Winner of the call "Avvio alla Ricerca - Tipo 1"
Role: PI.
Research project: "*The importance of PI3Ky signaling in the activation of immune CD8 T cells in hypertension*" granted by "Sapienza" University of Rome. € 1000,00
- 2017 Grant for scientific research "Ricerca di Ateneo 2017"
PI: Prof. Maurizio Taurino
Role: Collaborator
Research project: "*Symptomatic critical carotid stenosis. Effects of oxidative stress on immune response*" granted by "Sapienza" University of Rome.

Personal details “In compliance with the Italian legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.”

The undersigned declares to be aware that this curriculum vitae will be published on the institutional website of the University, in the "Transparent Administration" section, in the manner and for the duration established by Legislative Decree no. 33/2013, art. 15.

Date

22/12/2022

Signed

SARA PERROTTA