

BIOGRAPHICAL SKETCH

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NAME Cristina PANICO		POSITION TITLE	
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Milan, Milan, Italy.	MD	07/11	Medicine
University of Florence, Florence, Italy		12/17	Cardiology
Humanitas University, Milan, Italy	PhD	07/21	Molecular and Experimental medicine

HI: 10. Citations: 3,383

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A. Personal Statement

I am a physician scientist and practicing cardiology at Humanitas Research Hospital, and Assistant Professor of cardiology at Humanitas University, both located in Rozzano-Milan, Italy. I graduated in Medicine (MD) cum laude at University of Milan, Italy in 2011. After my general medicine training, I was competitively selected for a fellowship in cardiology at the University of Florence, Italy, and subspecialized on cardiac intensive care and interventional cardiology. In 2015 I obtained the certification of the Acute Cardiac Care Association (ACCA) of the European Society of Cardiology (ESC). In January 2017, I have been selected as Research Fellow for a translational research program in Cardiology. In December 2017 I completed my formal training in Cardiology. In June 2021, I obtained the PhD of Molecular and Experimental Medicine PhD course at Humanitas University, working on a translational project regarding inflammation and heart failure with preserved ejection fraction, which includes the development of a new mice model, gene expression and epigenetic modulation of the myocardial cells involved. Part of my thesis has been published on Circulation as first author. The cardiomyopathies clinic carries out an extensive clinical assessment, including cardiac magnetic resonance imaging, genetic and arrhythmia screening. We currently follow several hundred patients from all over Italy. I currently head the cardiovascular pharmacological clinical trial unit and the cardiomyopathies and dyslipidemias clinic. I am also leading translational projects on cancer and immune system interactions with cardiovascular diseases. I have presented different oral communications at major cardiovascular congresses, have authored 16 peer-reviewed articles. I act as reviewer for cardiovascular peer-reviewed journals.

B. Positions and Honors

Institution	Division	Location	Position	From Year	To Year
University of Trieste	Department of Cardiomyopathy,	Trieste, Italy	II level master student	2024	
Humanitas University	Inflammation and Immunology in Cardiovascular Pathologies Lab	Milan, Italy	Researcher	2022	-

Humanitas Research Hospital	Department of Cardiovascular Medicine	Milan, Italy	Cardiologist	2017	-
Humanitas University	Inflammation and Immunology in Cardiovascular Pathologies Lab	Milan, Italy	Phd student	2017	2021
Humanitas Research Hospital	Department of Cardiovascular Medicine, Humanitas Research Hospital	Milan, Italy	Fellow in cardiology	2012	2017
Humanitas Research Hospital	Cardiology and CCU Unit	Milan, Italy	Resident	2011	2012

C. Grant Reviewer activity:

D. Selected Peer-reviewed Publications

1. **Panico C**, Felicetta A, Kunderfranco P, et al. Single-Cell RNA Sequencing Reveals Metabolic Stress-Dependent Activation of Cardiac Macrophages in a Model of Dyslipidemia-Induced Diastolic Dysfunction. *Circulation*. doi: 2024 Nov 5;150(19):1517-1532. doi: 10.1161/CIRCULATIONAHA.122.062984
2. L. Elia, P. Kunderfranco, P. Carullo, M. Vacchiano, F. Farina, **C. Panico**, R. Papait, G. Condorelli and M. Quintavalle UHRF1 epigenetically orchestrates smooth muscle cell plasticity in arterial disease". *Journal of Clinical Investigation* 128(6), pp. 2473-2486
3. Martini E, Kunderfranco P, Peano C, Carullo P, Cremonesi M, Schorn T, Carriero R, Termanini A, Colombo FS7, Jachetti E, **Panico C**, Faggian G, Fumero A, Torracca L, Molgora M, Cibella J, Pagiatakis C, Brummelman J, Alvisi G, Mazza EMC, Colombo MP, Lugli E, Condorelli G, Kallikourdis M. Single-Cell Sequencing of Mouse Heart Immune Infiltrate in Pressure Overload-Driven Heart Failure Reveals Extent of Immune Activation. *Circulation*. 2019 Dec 17;140(25):2089-2107. doi: 10.1161/CIRCULATIONAHA.119.041694. Epub 2019 Oct 30.
4. Martini, E., Cremonesi, M., **Panico, C.**, Carullo, P., Bonfiglio, C.A., Serio, S., Jachetti, E., Colombo, M.P., Condorelli, G., Kallikourdis, M. T Cell Costimulation Blockade Blunts Age-Related Heart Failure (2020) *Circulation Research*, pp. 1115-1117.
5. **Panico, C.**, Kallikourdis, M., Condorelli, G. Defining circulating mononuclear cells in heart failure through single-cell RNA sequencing: New insights for an old disease (2021) , *Cardiovascular Research* , (2) , 341-342
6. Chiarito, M., Sanz-Sánchez, J., Cannata, F., Cao, D., Sturla, M., **Panico, C.**, Godino, C., Regazzoli, D., Reimers, B., De Caterina, R., Condorelli, G., Ferrante, G., Stefanini, G.G. Monotherapy with a P2Y12 inhibitor or aspirin for secondary prevention in patients with established atherosclerosis: a systematic review and meta-analysis (2020) *Lancet* (London, England), 395 (10235), pp. 1487-1495.
7. Anselmo A, Frank, D, Papa L, Viviani Anselmi C, Di Pasquale E, Mazzola M, **Panico C**, Clemente F, Soldani C, Pagiatakis C, Hinkel R, Thalmann R, Kozlik-Feldmann R, Miragoli M, Carullo P, Vacchiano M, Chaves-Sanjuan A, Santo N, Losi MA, Ferrari MC, Puca AA, Christiansen V, Seoudy H, Freitag-Wolf S, Frey N, Dempfle A, Mercola M, Esposito G, Briguori C, Kupatt C, and Condorelli G*, Myocardial hypoxic stress mediates functional cardiocellular vesicle release. *European Heart J*
8. **Panico C**, Pagnotta P, Mennuni M, Corrada E, Barbaro C, Rossi M, Lisignoli L, Zavalloni V, Parenti D, Belli G, Gasparini G, Presbitero P. Predictors of mortality in patients undergoing percutaneous aortic valve implantation. *Minerva Cardioangiol*. 2012 Dec;60(6):561-71. PMID: 23147434
9. Stefanini GG, **Panico C**. CAD in TAVI patients: relevance of disease complexity. *EuroIntervention* 2015;11:373-375.
10. **Panico C**, Condorelli G. Unmet Needs in the Pathogenesis and Treatment of Cardiovascular Comorbidities in Chronic Inflammatory Diseases. *Clin Rev Allergy Immunol*. 2017 Jul 24. doi: 10.1007/s12016-017-8624-5.
11. **Panico C**, Condorelli G. microRNA-132: a new biomarker of heart failure at last? *European Journal of Heart Failure* 20(1), pp. 86-88
12. Chiarito M, Cao D, Cannata F, **Panico C**, Reimers B, Stefanini GG. The Synergy stent in high-bleeding risk patients: why design matters. *Minerva Cardioangiol*. 2018 Oct;66(5):646-658. doi: 10.23736/S0026-4725.18.04673-X.
13. Cannata, F., Chiarito, M., Reimers, B., Azzolini, E., Ferrante, G., My, I., Viggiani, G., **Panico, C.**, Regazzoli, D., Ciccarelli, M., Voza, A., Aghemo, A., Li, H., Wang, Y., Condorelli, G., Stefanini, G.G. Continuation versus discontinuation of ACE inhibitors or

angiotensin II receptor blockers in COVID-19: effects on blood pressure control and mortality (2020) *European heart journal. Cardiovascular pharmacotherapy*, 6 (6), pp. 412-414.

14. Stefanini, G.G., Chiarito, M., Ferrante, G., Cannata, F., Azzolini, E., Viggiani, G., De Marco, A., Briani, M., Bocciolone, M., Bragato, R., Corrada, E., Gasparini, G.L., Marconi, M., Monti, L., Pagnotta, P.A., **Panico, C.**, Pini, D., Regazzoli, D., My, I., Kallikourdis, M., Ciccarelli, M., Badalamenti, S., Aghemo, A., Reimers, B., Condorelli, G. Early detection of elevated cardiac biomarkers to optimise risk stratification in patients with COVID-19 (2020) *Heart*, 106 (19), pp. 1512-1518.
15. **Panico C**, Bonora B, Camera A, et al. Pathophysiological basis of the cardiological benefits of SGLT-2 inhibitors: a narrative review. *Cardiovasc Diabetol*. 2023;22(1):164. doi:10.1186/s12933-023-01855-y
16. Piccini S, Favacchio G, **Panico C**, et al. Time-dependent effect of GLP-1 receptor agonists on cardiovascular benefits: a real-world study. *Cardiovasc Diabetol*. 2023;22(1):69. doi:10.1186/s12933-023-01800-z
17. Cannata F, Stefanini G, Carlo-Stella C, et al. Nebivolol versus placebo in patients undergoing anthracyclines (CONTROL Trial): rationale and study design. *J Cardiovasc Med*. 2023;24(7):469-474. doi:10.2459/JCM.0000000000001491
18. Stankowski K, Figliozzi S, Lisi C, et al. Solving the Riddle of Sudden Cardiac Death in Hypertrophic Cardiomyopathy: The Added Role of Cardiac Magnetic Resonance. *J Cardiovasc Dev Dis*. 2023;10(6):226. doi:10.3390/jcdd10060226
19. Pagliaro BR, Mincione G, Taormina A, et al. Atrial arrhythmias and heart failure: A “modern view” of an old paradox. *Pacing Clin Electrophysiol*. 2023;46(5):395-408. doi:10.1111/pace.14697
20. Gitto M, Kotinas AS, Terzi R, et al. **Panico C**. Biochemical Efficacy of Sodium–Glucose Cotransporter 2 Inhibitors by Cardiovascular Risk Profile and Volume Status in a Real-World Diabetic Population. *J Cardiovasc Pharmacol*. 2022;80(1):140-147. doi:10.1097/FJC.0000000000001280
21. Cremonesi M, Felicetta A, Cannata F, et al. Long COVID-19 Cardiac Complications Are Associated With Autoimmunity to Cardiac Self-Antigens Sufficient to Cause Cardiac Dysfunction. *Circulation*. 2023;148(6):504-507. doi:10.1161/CIRCULATIONAHA.122.062672

E. Research Support

Grant funded Institution/country	Year	Grant title	Position in grant	Amount
Humanitas Research Hospital	2019-2022	Humanitas Research Hospital Grant (5x1000 Funding). Correlation between clinical and immune phenotypes in Chronic Heart Failure (Immuno-heart).	Principal Investigator	EUR 72'000
Humanitas Research Hospital	2020-2023	Humanitas Research Hospital Grant (5x1000 Funding). Development of Machine Learning-based diagnostics to guide diagnosis of Heart Failure with Preserved Ejection Fraction	Principal Investigator	EUR 98'000
Ministero della salute	2020-2023	Bando ricerca finalizzata 2019. Immunofenotipizzazione nell'insufficienza cardiaca umana: correlazioni cliniche per potenziali indicazioni terapeutiche	Co-Pi	EUR 450'000

Different collaboration in designing prospective registries and clinical trials (phase 1-4).

Program Director/Principal Investigator (Last, First, Middle):

Panico, Cristina