Cardiovascular Clinical Research Group

University of Bari Aldo Moro (UniBA) | Bari, Italy

Scientific lead: Prof. Sebastiano Cicco, Associate Professor of Internal Medicine and Head of the Cardiovascular Diseases in Internal Medicine Unit, University Hospital of Bari.

CLINICAL EXPERTISE

Arterial hypertension, cardiovascular risk stratification, hypertension-mediated organ damage (HMOD), cardiac remodelling, arterial stiffness, vascular and endothelial dysfunction, and heart failure.

Specialist assessment of difficult-to-control, resistant and secondary hypertension, including secondary causes, subclinical organ damage, treatment optimisation and follow-up.

CARDIOVASCULAR ASSESSMENT

- Transthoracic echocardiography: cardiac structure, remodelling, systolic and diastolic function
- ECG and ambulatory blood pressure monitoring (ABPM)
- Pulse wave velocity (PWV) and ankle-brachial index (ABI)
- Laboratory assessment of cardiometabolic risk, renal function and organ damage

RESEARCH AND CLINICAL SETTING

Investigator-initiated observational and prospective studies, multicentre clinical research and translational cardiovascular phenotyping. Research areas include cardiac remodelling and prognosis in hypertension, treatment outcomes, vascular inflammation, endothelial dysfunction, telemedicine and digital health.

PROSIT: remote monitoring, therapeutic adherence and organ-damage assessment in hypertension. **ESH MASTER:** participation as a clinical site in a multicentre study. Additional work includes clinical validation of automated ultrasound assessment tools.

Our hypertension outpatient population includes patients with longitudinal follow-up and repeated cardiovascular assessments, supporting research recruitment and phenotyping.

PROFESSIONAL AND SCIENTIFIC ROLES

Regional Coordinator, Italian Society of Hypertension (SIIA); ESH Hypertension Specialist; SIECVI-certified echocardiographer with scientific-society responsibilities; Site PI, ESH MASTER.

POTENTIAL CONTRIBUTION TO CONSORTIA

- Clinical study design, patient selection and recruitment, and endpoint definition
- Multimodal cardiovascular phenotyping: clinical, imaging, vascular and laboratory data
- Longitudinal assessment of HMOD, treatment response and disease progression
- Clinical validation of predictive biomarkers and AI-supported cardiovascular risk models
- Evaluation of telemonitoring, digital health and innovative cardiovascular interventions

SELECTED PUBLICATIONS

1. Cicco S et al. Right atrium enlargement is related to increased heart damage and mortality in well-controlled hypertension. *Nutrition, Metabolism & Cardiovascular Diseases* (2022). **First author.** DOI: 10.1016/j.numecd.2021.10.004

2. Cicco S et al. Cardiovascular Risk in Patients With Takayasu Arteritis Directly Correlates With Diastolic Dysfunction and Inflammatory Cell Infiltration in the Vessel Wall: A Clinical, ex vivo and in vitro Analysis. *Frontiers in Medicine* (2022). **First author.** DOI: 10.3389/fmed.2022.863150

3. Cicco S et al. Antihypertensive treatment changes and related clinical outcomes in older hospitalized patients. *European Journal of Clinical Investigation* (2023). **First author.** DOI: 10.1111/eci.13931

4. Marozzi MS et al. Impact of remote monitoring on well-being, therapeutic adherence, and organ damage evaluation in hypertensive patients: the PROSIT study. *European Heart Journal - Digital Health* (2026). **Senior and corresponding author; study PI.** DOI: 10.1093/ehjdh/ztag001

5. Marozzi MS et al. A Novel Automatic Algorithm to Support Lung Ultrasound Non-Expert Physicians in Interstitial Pneumonia Evaluation: A Single-Center Study. *Diagnostics* (2024). **Co-first and corresponding author.** DOI: 10.3390/diagnostics14020155

Collaboration sought

Clinical research partner, clinical validation centre, or clinical work-package/task lead for HORIZON-HLTH-2027-02-TOOL-01-two-stage and HORIZON-HLTH-2027-02-DISEASE-01-two-stage.

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