



Sara Monosilio

CURRENT POSITION/POST GRADUATE CAREER

PhD course in Angio-Cardio-Thoracic Pathophysiology and Imaging, Sapienza University of Rome

[01/2022 – Current]

3rd year

Project: *“Cardiotoxicity related to immunotherapeutic agents for solid tumors - single versus dual Immune checkpoint inhibitors”*

Collaborator at the Institute of Sports Medicine and Science of Rome, Sports Cardiology Section

[01/2023 – Current]

EDUCATION AND TRAINING

Training in Cardiac Magnetic Resonance, Institute of Sports Medicine and Science of Rome, Imaging Department

[01/2021 – Current]

Post-graduate training in cardiology

Sapienza University of Rome [2018 – 2021]

Final grade : 70/70 cum Laude

Thesis: Cardiac structural and functional evaluation in Olympic athletes: the added value of Mapping and Myocardial Deformation by Cardiac Magnetic Resonance

Admission to the practice of Physician-Surgeon

Professional order of physicians in Rome with number 62998 of the professional [2017 – Current]

Degree Course in Medicine and Surgery

Sapienza University of Rome [2010 – 2016]

Final grade : 110/110 cum Laude

Thesis: The effectiveness of DOACs therapy in preventing thromboembolic events in patients with non-valvular atrial fibrillation. Data from a real-world registry.

OTHER EXPERIENCES

Humanitarian Mission in Eritrea

Project: “Sport è Vita” with ASSITER-Associazione Italia Eritrea Onlus

[October 2024]

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s): English (B2), Spanish

DIGITAL SKILLS

Good knowledge of statistical software SPSS

EDITORIAL ACTIVITY

Junior Editor for Compliance for European Heart Journal Case Reports

[01/2022 – Current]

Peer Reviewer for scientific medical journals (Journal of Cardiovascular Medicine, Medicine and Science in Sports and Exercise and others)

[06/2022 – Current]

PUBLICATIONS

Abnormal blood pressure response to exercise and ventricular arrhythmias: a suspicious association in athletes.

Di Gioia G, Ferrera A, Maestrini V, Monosilio S, Squeo MR, Lemme E, Serdoz A, Mango F, Pelliccia A.
J Hypertens. 2024 Nov 28. doi: 10.1097/HJH.0000000000003936. Epub ahead of print. PMID: 39625053.

Sodium-Glucose Cotransporter 2 Inhibitor Therapy in Different Scenarios of Heart Failure: An Overview of the Current Literature.

Prosperi S, D'Amato A, Labbro Francia A, Monosilio S, Cestiè C, Marek Iannucci S, Netti L, Angotti D, Filomena D, Mariani MV, Myftari V, Germanò R, Cimino S, Mancone M, Badagliacca R, Maestrini V, Severino P, Vizza CD.
Int J Mol Sci. 2024 Oct 25;25(21):11458. doi: 10.3390/ijms252111458. PMID: 39519011; PMCID: PMC11546829.

The challenge of interpreting cardiac adaptation to exercise: the importance of picking up the training history.

Maestrini V, Squeo MR, Monosilio S.
Eur Heart J. 2024 Aug 21;ehae535. doi: 10.1093/eurheartj/ehae535. Epub ahead of print. PMID: 39167078.

CMR native T1 and T2 Mapping in Olympic athletes: the influence of sport discipline and sex.

Prosperi S, Monosilio S, Lemme E, Filomena D, Penza M, Birtolo LI, Mango R, Di Gioia G, Gualdi G, Squeo MR, Pelliccia A, Maestrini V.
Eur Heart J Cardiovasc Imaging. 2024 Sep 23;jeae247. doi: 10.1093/ehjci/jeae247. Epub ahead of print. PMID: 39307539.

Revealing the unrevealed: echocardiography for non-ischemic scar tissue detection.

Di Gioia G, Ferrera A, Maestrini V, Monosilio S, Fiore R, Squeo MR, Pelliccia A.
J Sports Med Phys Fitness. 2024 Nov;64(11):1234-1238. doi: 10.23736/S0022-4707.24.16267-6. Epub 2024 Sep 3. PMID: 39225027

Association between FT3 Levels and Exercise-Induced Cardiac Remodeling in Elite Athletes.

Di Gioia G, Squeo MR, Lemme E, Maestrini V, Monosilio S, Ferrera A, Buzzelli L, Valente D, Pelliccia A.
Biomedicines. 2024 Jul 10;12(7):1530. doi: 10.3390/biomedicines12071530. PMID: 39062103; PMCID: PMC11274392

Determinants of supraventricular extra beats in elite athletes practicing different sporting disciplines.

Di Gioia G, Vespasiano F, Maestrini V, Monosilio S, Segreti A, Lemme E, Squeo MR, Serdoz A, Pelliccia A.
J Cardiovasc Med (Hagerstown) 2024 Oct 1;25(10):731-739. doi: 10.2459/JCM.0000000000001657. Epub 2024 Aug 23. PMID: 39225077.

Insight on Exercise-Induced Heart Remodeling in Different Track and Field Disciplines.

J Clin Med. 2024 Oct 10;13(20):6027. doi: 10.3390/jcm13206027. PMID: 39457977; PMCID: PMC11508581
Di Gioia G, Ferrera A, Vespasiano F, Maestrini V, Monosilio S, Lemme E, Serdoz A, Mango F, Casciani E, Pelliccia A, Squeo MR

Long-Term Evaluation of Lipid Profile Changes in Olympic Athletes.

Int J Sport Nutr Exerc Metab. 2024 Jun 25;1-8. doi: 10.1123/ijsnem.2023-0266. Epub ahead of print. PMID: 38917988.
Di Gioia G, Buzzelli L, Maestrini V, Squeo MR, Lemme E, **Monosilio S**, Serdoz A, Fiore R, Zampaglione D, Segreti A, Pelliccia A.

Left Ventricular Trabeculation: Arrhythmogenic and Clinical Significance in Elite Athletes.

J Am Soc Echocardiogr. 2024 Jun;37(6):577-586. doi: 10.1016/j.echo.2024.03.003. Epub 2024 Mar 15. PMID: 38492683.
Di Gioia G, Crispino SP, **Monosilio S**, Maestrini V, Nenna A, Spinelli A, Lemme E, Squeo MR, Pelliccia A

Cardiac Adaptation in Power Athletes: Differential Impact of Judo and Weightlifting.

J Clin Med. 2024 Jun 5;13(11):3336. doi: 10.3390/jcm13113336. PMID: 38893047; PMCID: PMC11172728.
Di Gioia G, Ferrera A, Maestrini V, **Monosilio S**, Squeo MR, Lemme E, Nenna A, Calaciura Clarich S, Crotta S, Pelliccia A.

Cardiovascular Risk Profile in Master Paralympic Athletes, a High-Risk Undertreated Population: A Cross-Sectional Longitudinal Study

High Blood Press Cardiovasc Prev. 2024 May;31(3):279-288. doi: 10.1007/s40292-024-00648-y. Epub 2024 May 7. PMID: 38714607.

Di Gioia G, Vespasiano F, Mango F, Maestrini V, **Monosilio S**, Squeo MR, Lemme E, Bernardi M, Pelliccia A.

The role of cardiac magnetic resonance in sports cardiology: results from a large cohort of athletes.

Clin Res Cardiol. 2024 May;113(5):781-789. doi: 10.1007/s00392-024-02447-w. Epub 2024 Apr 15. PMID: 38619578.
Maestrini V, Penza M, **Monosilio S**, Borrazzo C, Prosperi S, Filomena D, Birtolo LI, Lemme E, Mango R, Di Gioia G, Gualdi G, Squeo MR, Pelliccia A.

Lack of cardiac remodelling in elite endurance athletes: an unexpected and not so rare finding.

Eur J Appl Physiol. 2024 Apr 22. doi: 10.1007/s00421-024-05489-0. Epub ahead of print. PMID: 38647676.
Di Gioia G, Crispino SP, Maestrini V, **Monosilio S**, Ortolina D, Segreti A, Squeo MR, Lemme E, Nenna A, Pelliccia A.

Cardiovascular Effects of Chronic Hormone Therapy: Study on Olympic Female Athletes

Am J Cardiol. 2024 Feb 1;212:6-12. doi: 10.1016/j.amjcard.2023.11.032. Epub 2023 Nov 18. PMID: 37984634.
Di Gioia G, Crispino SP, Maestrini V, **Monosilio S**, Squeo MR, Lemme E, Nenna A, Luvero D, Angioli R, Pelliccia A.

Prevalence of Hyperuricemia and Associated Cardiovascular Risk Factors in Elite Athletes Practicing Different Sporting Disciplines: A Cross-Sectional Study

J Clin Med. 2024 Jan 18;13(2):560. doi: 10.3390/jcm13020560. PMID: 38256692; PMCID: PMC10816906.
Di Gioia G, Crispino SP, Maestrini V, **Monosilio S**, Squeo MR, Lemme E, Segreti A, Serdoz A, Fiore R, Zampaglione D, Pelliccia A.

Influence of the Type of Disability and Sporting Discipline on Lipid Profile in a Cohort of Italian Paralympic Athletes.

Am J Cardiol. 2024 Jan 1;210:107-112. doi: 10.1016/j.amjcard.2023.09.118. Epub 2023 Oct 29. PMID: 38682709.
Di Gioia G, Coletti F, Buzzelli L, Maestrini V, **Monosilio S**, Segreti A, Squeo MR, Lemme E, Nenna A, Pelliccia A.

CMR Mapping: The 4th-Era Revolution in Cardiac Imaging

J Clin Med. 2024 Jan 7;13(2):337. doi: 10.3390/jcm13020337. PMID: 38256470; PMCID: PMC10816333.
Carrabba N, Amico MA, Guaricci AI, Carella MC, Maestrini V, **Monosilio S**, Pedrotti P, Ricci F, Monti L, Figliozzi S, Torlasco C, Barison A, Baggiano A, Scatteia A, Pontone G, Dellegrottaglie S; Working Group on Cardiac Magnetic Resonance of the Italian Society of Cardiology.

Periodic health evaluation in athletes competing in Tokyo 2020: from SARS-CoV-2 to Olympic medals.

BMJ Open Sport Exerc Med. 2023 Nov 29;9(4):e001610. doi: 10.1136/bmjsem-2023-001610. PMID: 38046277; PMCID: PMC10689352.
Squeo MR, **Monosilio S**, Gismondi A, Perrone M, Gregorace E, Lemme E, Di Gioia G, Mango R, Prosperi S, Spataro A, Maestrini V, Di Giacinto B, Pelliccia

Lipid Profile in Olympic Athletes: Proposal for a "Lipid Athlete Score" as a Clinical Tool to Identify High-Risk Athletes

J Clin Med. 2023 Nov 30;12(23):7449. doi: 10.3390/jcm12237449. PMID: 38068500; PMCID: PMC10707559.
Di Gioia G, Buzzelli L, Maestrini V, Nenna A, **Monosilio S**, Squeo MR, Lemme E, Pelliccia A.

Cardiovascular and metabolic effects of hyperbilirubinemia in a cohort of Italian Olympic athletes.

Scand J Med Sci Sports. 2023 Aug 31. doi: 10.1111/sms.14481. Epub ahead of print. PMID: 37650311.
Di Gioia G, Crispino SP, **Monosilio S**, Maestrini V, Nenna A, Segreti A, Squeo MR, Lemme E, Ussia GP, Grigioni F, Pelliccia A.

A Meta-Analysis of Short-Term Outcomes of TAVR versus SAVR in Bicuspid Aortic Valve Stenosis and TAVR Results in Different Bicuspid Valve Anatomies

J Clin Med. 2023 Nov 28;12(23):7371. doi: 10.3390/jcm12237371. PMID: 38068423; PMCID: PMC10707011.
Improta R, Di Pietro G, Kola N, Birtolo LI, Colantonio R, Bruno E, Tocci M, Giansante A, Sannino M, Zullino V, **Monosilio S**, Cimino S, Maestrini V, Severino P, Badagliacca R, Lavallo C, Celli P, Saade W, Musto C, D'Ascenzo F, Miraldi F, Vizza CD, Sardella G, Mancone M.

Sizing SGLT2 Inhibitors Up: From a Molecular to a Morpho-Functional Point of View

Int J Mol Sci. 2023 Sep 8;24(18):13848. doi: 10.3390/ijms241813848. PMID: 37762152; PMCID: PMC10530908.
Prosperi S, D'Amato A, Severino P, Myftari V, **Monosilio S**, Marchiori L, Zagordi LM, Filomena D, Di Pietro G, Birtolo LI, Badagliacca R, Mancone M, Maestrini V, Vizza CD.

Sport activity in patients with cardiomyopathies: a review.

J Cardiovasc Med (Hagerstown). 2023 May 1;24(Suppl 2):e116-e127. doi: 10.2459/JCM.0000000000001470. PMID: 37186562
Andreini D, Bauce B, Limongelli G, **Monosilio S**, Di Lorenzo F, Angelini F, Melotti E, Monda E, Mango R, Toso E, Maestrini V.

Added value of hemodynamic forces for left ventricle function evaluation.

EBioMedicine 2023 Jan;87:104409; doi: 10.1016/j.ebiom.2022.104409, Epub 2022 Dec 14.
Monosilio S, Mancone M, Maestrini V.

Short and Long-Term Cardiovascular Sequelae after SARS-CoV-2 Infection: A Narrative Review Focusing on Athletes.

Viruses 2023 Feb 10;15(2):493. doi: 10.3390/v15020493.
Monosilio S, Prosperi S, Squeo MR, Spataro S, Spataro A, Maestrini V.

Low prevalence of cardiac abnormalities in competitive athletes at Return-to-Play after COVID-19.

Journal of Science and Medicine in Sport, 2022, ISSN 1440-2440, <https://doi.org/10.1016/j.jsams.2022.10.015>.
Viviana Maestrini, Marco Penza, Domenico Filomena, Lucia Ilaria Birtolo, **Sara Monosilio**, Erika Lemme, Maria Rosaria Squeo, Ruggiero Mango, Giuseppe Di Gioia, Andrea Serdoz, Roberto Fiore, Francesco Fedele, Antonio Pelliccia, Barbara Di Giacinto

Prognostic value of systemic inflammatory response syndrome after transcatheter aortic valve implantation.

Journal of Cardiovascular Medicine, 2022 Jun 1;23(6):394-398. doi:10.2459/JCM.0000000000001309.
Sara Monosilio, Domenico Filomena, Sara Cimino, Lucia Ilaria Birtolo, Marco Tocci, Massimo Mancone, Gennaro Sardella, Francesco Fedele, Viviana Maestrini and Luciano Agati

Cardiac and vascular remodeling after 6 months of therapy with Sacubitril/Valsartan: mechanistic insights from advanced echocardiographic analysis. Front Cardiovasc Med . 2022 May 18;9:883769. doi: 10.3389/fcvm.2022.883769

Sara Monosilio, Domenico Filomena, Federico Luongo, Michele Sannino, Sara Cimino, Matteo Neccia, Marco Valerio Mariani, Lucia Ilaria Birtolo, Giulia Benedetti, Giovanni Tonti, Gianni Pedrizzetti, Carmine Dario Vizza, Viviana Maestrini and Luciano Agati

Complex connections: A young man presenting with shortness of breath, hypoxemia, right lumbar pain and left limb swelling. Echocardiography. 2022 Mar 6. doi: 10.1111/echo.15330.

Filomena D, **Monosilio S**, Sannino M, Cimino S, Maestrini V, Bruno E, Miraldi F, Fedele F, Vizza CD, Agati L.

Echo Characterization of Proportionate and Disproportionate Functional Mitral Regurgitation before and after Percutaneous Mitral Valve Repair. J Clin Med. 2022 Jan 27;11(3):645. doi: 10.3390/jcm11030645.

Cimino S, Agati L, Filomena D, Maestrini V, **Monosilio S**, Birtolo LI, Mocchi M, Mancone M, Sardella G, Grayburn P, Fedele F.

Impact of intraventricular haemodynamic forces misalignment on left ventricular remodelling after myocardial infarction.

ESC Heart Fail. 2021 Dec 23. doi: 10.1002/ehf2.13719.
Filomena D, Cimino S, **Monosilio S**, Galea N, Mancuso G, Francone M, Tonti G, Pedrizzetti G, Maestrini V, Fedele F, Agati L.

Prognostic role of pre- and post-interventional myocardial injury in patients undergoing transcatheter aortic valve implantation. Minerva Cardiol Angiol. 2021 May 4. doi: 10.23736/S2724-5683.21.05630-1

Filomena D, **Monosilio S**, Cimino S, Maestrini V, Luongo F, Neccia M, Salvi N, Colantonio R, Mancone M, Sardella G, Fedele F, Agati L.

Myocardial contractility recovery following acute pressure unloading after transcatheter aortic valve intervention (TAVI) in patients with severe aortic stenosis and different left ventricular geometry: a multilayer longitudinal strain echocardiographic analysis. Int J Cardiovasc Imaging. 2021 Mar;37(3):965-970. doi: 10.1007/s10554-020-02074-2.

Cimino S, **Monosilio S**, Luongo F, Neccia M, Birtolo LI, Salvi N, Filomena D, Mancone M, Fedele F, Agati L, Maestrini V.

The evolving role of echocardiography in the assessment of patent foramen ovale in patients with left-side thromboembolism. *Echocardiography*. 2021 Apr;38(4):657-675. doi: 10.1111/echo.15018. Epub 2021 Mar 19. Filomena D, Cimino S, Maestrini V, **Monosilio S**, Birtolo LI, Vicenzini E, Mancone M, Fedele F, Agati L.

Peak white blood cell count, infarct size and myocardial salvage in patients with reperfused ST-elevation myocardial infarction: a cardiac magnetic resonance study. *J Cardiovasc Med (Hagerstown)*. 2021 Mar 1;22(3):228-230. doi: 10.2459/JCM.0000000000001033. Arcari L, Cimino S, Filomena D, **Monosilio S**, Luongo F, Mancone M, Galea N, Francone M, Maestrini V, Agati L.

The impact of vaccination status on post-acute sequelae in hospitalized COVID-19 survivors using a multi-disciplinary approach: An observational single center study. Birtolo LI, Di Pietro G, Ciuffreda A, Improta R, **Monosilio S**, Prosperi S, Cimino S, Galea N, Severino P, Galardo G, Colaiacomo MC, Pasculli P, Petroianni A, Palange P, Mastroianni CM, de Vito L, Catalano C, Pugliese F, Ciardi MR, Celli P, Badagliacca R, Fedele F, Vizza CD, Maestrini V, Mancone M; Policlinico Umberto I COVID-19 Group. *Heliyon*. 2024 Nov 15;10(22):e40409. doi: 10.1016/j.heliyon.2024.e40409. PMID: 39641021; PMCID: PMC11617281.

AWARDS and GRANTS

Winner of the Young Investigator Award Sports Cardiology and Exercise for the best original scientific work presented at ESC Preventive Cardiology 2023

"Extreme cardiac remodeling observed in elite endurance athletes: analysis of myocardial deformation and estimated hemodynamic forces"

Young Investigators Award sports cardiology and exercise for the best original scientific work presented at ESC Preventive Cardiology 2022

"Left myocardial deformation in Olympic athletes assessed by cardiac magnetic resonance: does the sex and discipline matter?"

Finalists for the Young Investigator Awards, ESC Preventive Cardiology 2022

"Positive CMR findings are associated with polymorphic ventricle arrhythmias and ECG repolarization changes but not with exercise-induced arrhythmias in competitive and non-competitive athletes"

Winner of Abstract Rapid Fire Session, ESC Preventive Cardiology 2022

"Hemodynamic forces in Olympic athletes assessed by cardiac magnetic resonance: a new non-invasive screening tool?"

Research Grant, Sapienza University of Rome, 2022

Project: "Non-invasive hemodynamic evaluation of patients with severe aortic stenosis treated with TAVI by advanced echocardiography"

CONGRESS ACTS

Abstract Presenter at Euroecho 2019, 2021

Abstract Presenter at SIC Congress 2019-21-22-23

Abstract Presenter and Finalist of YIA at EAPC Congress 2022

Abstract Presenter and Finalist/Winner of YIA at EAPC Congress 2023

Abstract Presenter at SCMR 2024

Abstract Presenter at EAPC Congress 2024

Abstract Presenter at ESC Congress 2024

Abstract Presenter and Speaker at SIC 2024

ABSTRACTS

Abstracts accepted at European congresses

1. Different response of myocardial contractility by layer following acute pressure unloading after transcatheter aortic valve implantation, *European Heart Journal - Cardiovascular Imaging* <https://doi.org/10.1093/ehjci/jez319.800>
2. Prognostic role of Multilayer Strain Speckle Tracking Echocardiography in patients with severe aortic stenosis treated with Transcatheter Aortic Valve Implantation, *European Heart Journal - Cardiovascular Imaging* <https://doi.org/10.1093/ehjci/jez319.1111>
3. Intraventricular fluid patterns during dobutamine stress echo in patients with significant coronary stenosis, *European Heart Journal - Cardiovascular Imaging* <https://doi.org/10.1093/ehjci/jez319.451>
4. Impact of different techniques for mitral valve repair on left ventricular function: a 2D/3D echocardiographic analysis, *European Heart Journal - Cardiovascular Imaging* <https://doi.org/10.1093/ehjci/jez319.946>
5. The effects of cardiovascular diseases and treatment on clinical course of hospitalized COVID-19 patients, *European Heart Journal Supplements* <https://doi.org/10.1093/eurheartj/suab135.040>
6. Cardio-vascular remodelling during sacubitril/valsartan therapy in patients with heart failure and reduced ejection fraction, *European Heart Journal Supplements* <https://doi.org/10.1093/eurheartj/suab132.039>

7. Follow-up of hospitalized COVID-19 survivors: assessment of short- and long-term cardiovascular sequelae after SARS-CoV-2 infection, *European Heart Journal Supplements*, <https://doi.org/10.1093/eurheartj/suab135.039>
8. Misalignment of hemodynamic forces in the left ventricle is associated with adverse remodeling following STEMI, *European Heart Journal - Cardiovascular Imaging*, <https://doi.org/10.1093/ehjci/jeaa356.283>
9. Low prevalence of cardiac abnormalities in competitive athletes before the return-to-play after COVID-19 based on the Italian strategy, *European Journal of Preventive Cardiology* <https://doi.org/10.1093/eurjpc/zwac056.278>
10. Cardiovascular screening in olympic athletes before and after SARS-CoV-2 infection, *European Journal of Preventive Cardiology* <https://doi.org/10.1093/eurjpc/zwac056.277>
11. Positive CMR findings are associated with polymorphic ventricle arrhythmias and ECG repolarization changes but not with exercises induced arrhythmias in competitive and non-competitive athletes, *European Journal of Preventive Cardiology* <https://doi.org/10.1093/eurjpc/zwac056.279>
12. Left ventricle myocardial deformation in olympic athletes assessed by cardiac magnetic resonance: does the sex and discipline matter?, *European Journal of Preventive Cardiology* <https://doi.org/10.1093/eurjpc/zwac056.328>
13. Hemodynamic forces in olympic athletes assessed by cardiac magnetic resonance: a new non-invasive screening tool? *European Journal of Preventive Cardiology* <https://doi.org/10.1093/eurjpc/zwac056.329>
14. Excessive left ventricular trabeculation in olympic athletes: is it a matter of ventricular function? *Presented at SCMR2024, Jan 26th 2024*
15. Cluster analysis of cmr parameters in a group of olympic athletes: is it time for a tailored morpho-functional evaluation of cardiac remodeling? *Presented at SCMR2024, Jan 26th 2024*

MEMBERSHIPS and ROLES in SCIENTIFIC SOCIETIES

EAPC Young Community Core Group Member- RESEARCH COMMITTEE -Deputy Representative (2024-2026 Mandate)

EACVI Membership

ESC Membership

EAPC Membership

Italian Federation of Cardiology Membership

Italian Society of Cardiology (SIC) Membership

COURSES

Fundamentals of medical statistical analysis with SPSS

[03/2022 – 05/2022]

Respiratory Failure and Non Invasive Ventilation

[2019]

STIRS, San Camillo Hospital, Rome

ACLS Retraining, American Heart Association

[2019]

ACLS Provider, American Heart Association

[2017]

Rome, 05/01/2025

Severino