

DOMENICO FILOMENA M.D.

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WORK EXPERIENCE

APRIL 2022 – NOW
RESEARCH FELLOW SAPIENZA UNIVERSITY OF ROME, ROMA

GENUARY 2021 – AUGUST 2021
MEDICAL DOCTOR POLICLINICO UMBERTO I, ROMA
COVID-19 Cardiology ward

FELLOWSHIP E HONORARY APPOINTMENTS

SEPTEMBER 2021 – DECEMBER 2021
CLINICAL E RESEARCH FELLOWSHIP, KU LEUVEN, LEUVEN
Cardiac Magnetic Resonance Fellowship. Supervisor: Prof. Jan Bogaert

AUGUST 2016 – NOVEMBER 2016
CLINICAL FELLOWSHIP, KING'S COLLEGE HOSPITAL, LONDRA
Echocardiography Fellowship. Supervisor: Prof. Mark Monaghan

TRAINING

GENUARY 2022- NOW
PHD COURSE, SAPIENZA UNIVERSITY OF ROME
PhD course in Angio-Cardio-Thoracic Pathophysiology and Imaging

2017-2021
POST-GRADUATE TRAINING IN CARDIOLOGY, SAPIENZA UNIVERSITY OF ROME

2013-2016
HONOURS PROGRAM, SAPIENZA UNIVERSITY OF ROME
Honours program in scientific research. Tutor: Prof. Luciano Agati

2010-2016
DEGREE COURSE IN MEDICINE AND SURGERY, SAPIENZA UNIVERSITY OF ROME

2005-2010

HIGH SCHOOL DEGREE IN SCIENTIFIC STUDIES, TITO LIVIO HIGH SCHOOL, MARTINA FRANCA (TA)

SCIENTIFIC ACTIVITIES

CLINICAL TRIALS

- ✓ Study assistant. Clinical Trial BR1-141: "A Prospective Multicenter Phase III Clinical Evaluation of the Safety and Efficacy of Lumason™/SonoVue® in Subjects Undergoing Pharmacologic Stress Echocardiography with Dobutamine for the Diagnosis of Coronary Artery Disease"
- ✓ Sub investigator. Clinical Trial A011-12 (SOTERIA) Phase 3 - An open-label long-term follow-up study to evaluate the effects of sotatercept when added to background pulmonary arterial hypertension (PAH) therapy for the treatment of PAH.
- ✓ Sub investigator. Clinical Trial A011-13 (HYPERION)- A phase 3, randomized, double-blind, placebo-controlled study to evaluate sotatercept when added to background pulmonary arterial hypertension (PAH) therapy in newly diagnosed intermediate- and high-risk PAH patients.
- ✓ Sub investigator. Clinical Trial A11-14 (ZENITH) - A phase 3, randomized, double-blind, placebo-controlled study to evaluate sotatercept when added to maximum tolerated therapy in participants with pulmonary arterial hypertension (PAH) World health organization (WHO) Functional Class (FC) III or FC IV at high risk of mortality.

PEER-REVIEW

- ✓ Journal of Cardiovascular Magnetic Resonance (JCMR)
- ✓ Journal of American Heart Association (JAHA)
- ✓ Minerva Cardiology and Angiology
- ✓ European Heart Journal- Case Reports
- ✓ Cardiology Research and Practice
- ✓ International Journal of Cardiovascular Imaging
- ✓ Echocardiography

EDITORIAL DUTY

- ✓ Review Editor for Frontiers in Cardiovascular Medicine

AWARDS AND GRANTS

AWARDS

- ✓ Best Rapid Fire Abstract Presentation – ESC Preventive Cardiology 2022
- ✓ Two abstracts finalists for the Young Investigator Awards, EuroPrevent 2022
- ✓ Abstract winner Young Investigator Awards, ESC Congress 2021
- ✓ 2020 JCMR Gold Star Reviewer
- ✓ Abstract finalist for the Young Investigator Award, British Heart Valve Society 2016
- ✓ Abstract finalist for the Young Investigator Award, EuroEcho 2016
- ✓ Excellent Graduate Award 2015/2016- "Sapienza" University of Rome

GRANTS

- ✓ EACVI Training Grant 2021
- ✓ Research grant, Sapienza University of Rome, 2020
- ✓ ESC Travel Grant EuroEcho Imaging 2018
- ✓ Erasmus + Traineeship 2017

MEMBERSHIP

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| ✓ EACVI Silver Membership | ✓ ESC Council of Cardio-Oncology |
| ✓ ACVC Regular Membership | Regular Membership |
| ✓ HFA Regular Membership | ✓ Italian Federation of Cardiology (FIC) |

PUBLICATIONS

1. Cimino S, Palombizio D, Cicogna F, Cantisani D, Reali M, Filomena D, et al. Significant increase of flow kinetic energy in “nonresponders” patients to cardiac resynchronization therapy. Echocardiography. 2017;34(5).
2. Cimino S, Maestrini V, Cantisani D, Petronilli V, Filomena D, Mancone M, et al. 2D/3D echocardiographic determinants of left ventricular reverse remodelling after MitraClip implantation. Eur Hear J - Cardiovasc Imaging. 2019 May 1;20(5):558–64.
3. Cimino S, Maestrini V, Cantisani D, Petronilli V, Filomena D, Gatto MC, et al. 2D/3D Echocardiographic features of patients with reverse remodeling after cardiac resynchronization therapy. Echocardiography. 2019 Aug;36(8):1475–81
4. Filomena D, Cimino S, Maestrini V, Cantisani D, Petronilli V, Mancone M, et al. Changes in Intraventricular Flow Patterns after MitraClip Implant in Patients with Functional Severe Mitral Regurgitation. J Am Soc Echocardiogr. 2019 Sep;32(9):1250-1253.e1.
5. Filomena D, Versacci P, Cimino S, Mattiucci C, Maestrini V, Cantisani D, et al. Echocardiographic long-term follow-up of adult survivors of pediatric cancer treated with Dextrazoxane-Anthracyclines association. Int J Cardiol. 2019 Aug;
6. Cimino S, Maestrini V, Cantisani D, Petronilli V, Filomena D, Mancone M, et al. Mid-term repair durability after MitraClip implantation in patients with functional mitral regurgitation. J Cardiovasc Med. 2019;20(10):701–8.
7. Arcari L, Cimino S, Filomena D, Monosilio S, Luongo F, Mancone M, Galea N, Francione M, Maestrini V, 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.

8. Cimino S, Arcari L, Filomena D, Agati L. In the Eye of the Storm: Echocardiographic Particle Image Velocimetry Analysis in a Patient with Takotsubo Syndrome. *Echocardiography*. 2020 Aug;37(8):1312-1314. doi: 10.1111/echo.14776. Epub 2020 Jul 17
9. Chen P, van Sloun RJG, Turco S, Wijkstra H, Filomena D, Agati L, Houthuizen P, Mischi M. Blood flow patterns estimation in the left ventricle with low-rate 2D and 3D dynamic contrast-enhanced ultrasound. *Comput Methods Programs Biomed*. 2021 Jan;198:105810. doi: 10.1016/j.cmpb.2020.105810. Epub 2020
10. Filomena D, Cimino S, Maestrini V, Monosilio S, Birtolo LI, Vicenzini E, Mancone M, Fedele F, Agati L. 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.
11. Cimino S, Monosilio S, Luongo F, Neccia M, Birtolo LI, Salvi N, Filomena D, Mancone M, Fedele F, Agati L, Maestrini V. 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.
12. Filomena D, Monosilio S, Cimino S, Maestrini V, Luongo F, Neccia M, Salvi N, Colantonio R, Mancone M, Sardella G, 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
13. Filomena D, Birtolo LI, Penza M, Gualdi G, Di Giacinto B, Maestrini V. The role of cardiovascular magnetic resonance in the screening before the return-to-play of elite athletes after COVID-19: utility or futility? *J Sports Med Phys Fitness*. 2021 Aug;61(8):1137-1143. doi: 10.23736/S0022-4707.21.12764-1.
14. Filomena D, Cimino S, Monosilio S, Galea N, Mancuso G, Franccone M, Tonti G, Pedrizzetti G, Maestrini V, Fedele F, Agati L. Impact of intraventricular haemodynamic forces misalignment on left ventricular remodelling after myocardial infarction. *ESC Heart Fail*. 2021 Dec 23. doi: 10.1002/ehf2.13719.
15. Pandozi C, Mariani MV, Chimenti C, Maestrini V, Filomena D, Magnocavallo M, Straito M, Piro A, Russo M, Galeazzi M, Ficili S, Colivicchi F, Severino P, Mancone M, Fedele F, Lavallo C. The scar: the wind in the perfect storm-insights into the mysterious living tissue originating ventricular arrhythmias. *J Interv Card Electrophysiol*. 2022 Jan 24. doi: 10.1007/s10840-021-01104-w.
16. Cimino S, Agati L, Filomena D, Maestrini V, Monosilio S, Birtolo LI, Mocci M, Mancone M, Sardella G, Grayburn P, Fedele F. 3D 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.

17. Filomena D, Monosilio S, Sannino M, Cimino S, Maestrini V, Bruno E, Miraldi F, Fedele F, Vizza CD, Agati L. 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.
18. Calvieri C, Galea N, Cilia F, Pambianchi G, Mancuso G, Filomena D, Cimino S, Carbone I, Francone M, Agati L and Catalano C (2022) Protective Value of Aspirin Loading Dose on Left Ventricular Remodeling After ST-Elevation Myocardial Infarction. *Front. Cardiovasc. Med*. 9:786509. doi: 10.3389/fcvm.2022.786509
19. Manzi G, Papa S, Mariani MV, Scoccia G, Filomena D, Malerba C, Adamo FI, Caputo A, De Lazzari C, De Lazzari B, Cedrone N, Madonna R, Recchioni T, Serino G, Vizza CD, Badagliacca R. Telehealth: A winning weapon to face the COVID-19 outbreak for patients with pulmonary arterial hypertension. *Vascul Pharmacol*. 2022 Jun 16;145:107024.
20. Maestrini V, Filomena D, Birtolo LI, Serdoz A, Fiore R, Tatangelo M, Lemme E, Squeo MR, Mango R, Di Gioia G, Fedele F, Gualdi G, Spataro A, Pelliccia A, Di Giacinto B. Systematic Cardiovascular Screening in Olympic Athletes before and after SARS-CoV-2 Infection. *J Clin Med*. 2022 Jun 17;11(12):3499.
21. Monosilio S, Filomena D, Luongo F, Sannino M, Cimino S, Neccia M, Mariani MV, Birtolo LI, Benedetti G, Tonti G, Pedrizzetti G, Vizza CD, Maestrini V, Agati L. 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.
22. Monosilio S, Filomena D, Cimino S, Birtolo LI, Tocci M, Mancone M, Sardella G, Fedele F, Maestrini V, Agati L. Prognostic value of systemic inflammatory response syndrome after transcatheter aortic valve implantation. *J Cardiovasc Med (Hagerstown)*. 2022 Jun 1;23(6):394-398.
23. De Lazzari B, Iacovoni A, Capoccia M, Papa S, Badagliacca R, Filomena D, De Lazzari C. Ventricular and Atrial Pressure-Volume Loops: Analysis of the Effects Induced by Right Centrifugal Pump Assistance. *Bioengineering (Basel)*. 2022 Apr 20;9(5):181.
24. Filomena D, Dresselaers T and Bogaert J. Role of Cardiovascular Magnetic Resonance to Assess Cardiovascular Inflammation. *Front. Cardiovasc. Med*. 2022 9:877364
25. Figliozzi S, Georgiopoulos G, Lopes PM, Bauer KB, Moura-Ferreira S, Tondi L, Mushtaq S, Censi S, Pavon AG, Bassi I, Servato ML, Teske AJ, Biondi F, Filomena D, Pica S, Torlasco C, Muraru D, Monney P, Quattrocchi G, Maestrini V, Agati L, Monti L, Pedrotti P, Vandenberk B, Squeri A, Lombardi M, Ferreira AM, Schwitter J, Aquaro GD, Chiribiri A, Rodríguez Palomares JF, Yilmaz A, Andreini D, Florian A, Leiner T, Abecasis J, Badano LP, Bogaert J, Masci PG. Myocardial Fibrosis at Cardiac MRI Helps Predict Adverse Clinical Outcome in Patients with Mitral Valve Prolapse. *Radiology*. 2022 Sep 13;220454. doi: 10.1148/radiol.220454.

26. Badagliacca R, Vizza CD, Lang I, Sadushi-Kolici R, Papa S, Manzi G, Filomena D, Ogawa A, Shimokawahara H, Matsubara H. Pulmonary pressure recovery in idiopathic, hereditary and drug and toxin-induced pulmonary arterial hypertension: determinants and clinical impact. *Vascul Pharmacol*. 2022 Sep 1;146:107099. doi: 10.1016/j.vph.2022.107099.
27. De Lazzari B, Badagliacca R, Filomena D, Papa S, Vizza CD, Capoccia M, De Lazzari C. CARDIOSIM©: The First Italian Software Platform for Simulation of the Cardiovascular System and Mechanical Circulatory and Ventilatory Support. *Bioengineering (Basel)*. 2022 Aug 11;9(8):383. doi: 10.3390/bioengineering9080383.

CONGRESS ACTS

1. Filomena D, Cimino S, Reali M, Pagliaro M, Tonti G, et al.; Intraventricular flow patterns after percutaneous mitral valve repair with MitraClip implantation *in* Young Investigator Award session: Basic Science, *European Heart Journal-Cardiovascular Imaging*, 17, suppl_2, ii53-ii54, 2016, Oxford University Press
2. Cimino S, Maestrini V, Pagliaro M, Reali M, Mancione M, Filomena D, et al. Immediate effect of a successful MitraClip procedure on mitral annulus geometry in a patient with secondary severe mitral regurgitation *European Heart Journal Cardiovascular Imaging*, 18, suppl_3 iii260, 2017, Oxford University Press.
3. Filomena D, Cimino S, Maestrini V, Cantisani D, Petronilli V, Sannino M, et al. Intraventricular flow patterns after percutaneous mitral valve repair with MitraClip implantation in patients with functional MR, *in* Moderated Posters session-Mitral regurgitation in the era of edge-to-edge percutaneous procedure, *European Heart Journal-Cardiovascular Imaging*, 18, suppl_3, iii94-iii96, 2017, Oxford University Press
4. Filomena D, Cimino S, Maestrini V, Cantisani D, Petronilli V, Velato L, et al. Intraventricular fluid dynamics evaluated during DSE: new horizon for CAD patients *in* Moderated Posters-The diversity of clinical use of stress echo, *European Heart Journal-Cardiovascular Imaging*, 20, Supplement_1, i767-i774, 2019, Oxford University Press
5. Filomena D, Cimino S, Maestrini V, Petronilli V, Cantisani D, Neccia M, et al. P795 Intraventricular fluid patterns during dobutamine stress echo in patients with significant coronary stenosis, *European Heart Journal - Cardiovascular Imaging*, Volume 21, Issue Supplement_1, January 2020, jez319.451, <https://doi.org/10.1093/ehjci/jez319.451>
6. Filomena D, Cimino S, Maestrini V, Petronilli V, Cantisani D, Mattiucci C, et al. P1781 Cardio-protective role of dexrazoxane co-administered with anthracyclines: long-term echocardiographic follow-up in adult survivors of pediatric cancer, *European Heart Journal - Cardiovascular Imaging*, Volume 21, Issue Supplement_1, January 2020, jez319.1137, <https://doi.org/10.1093/ehjci/jez319.1137>
7. Cimino S, Birtolo L I, Maestrini V, De Leo F, Vinciguerra M, Filomena D, et al. P1523 Impact of different techniques for mitral valve repair on left ventricular function: a 2D/3D echocardiographic analysis, *European Heart Journal - Cardiovascular Imaging*, Volume 21, Issue Supplement_1, January 2020, jez319.946, <https://doi.org/10.1093/ehjci/jez319.946>
8. Cimino S, Maestrini M, Monosilio S, Luongo F, Neccia M, Birtolo L I, Petronilli V, Cantisani D, Salvi N, Filomena D, et al. P1365 Different response of myocardial contractility by layer

jez319.800, <https://doi.org/10.1093/ehjci/jez319.800>

9. Cimino S, Maestrini V, Monosilio S, Luongo F, Neccia M, Birtolo L I, Petronilli V, Salvi N,

Cantisani D, Filomena D, et al. P1752 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, Volume 21, Issue

Supplement_1, January 2020, jez319.1111, <https://doi.org/10.1093/ehjci/jez319.1111>

10. Prosperi S, Birtolo L I, Yarden Revivo M, Monosilio S, Cimino S, Filomena D, et al. 288 The

effects of cardiovascular diseases and treatment on clinical course of hospitalized COVID-19

patients, European Heart Journal Supplements, Volume 23, Issue Supplement_G, December

2021, suab135.040, <https://doi.org/10.1093/eurheartj/suab135.040>

11. Monosilio S, Filomena D, Luongo F, Neccia M, Sannino M, Birtolo L I, Cimino S, Benedetti G,

Tonti G, Pedrizzetti G, Fedele F, Maestrini V, Agati L, 511 Cardio-vascular remodelling during

sacubitril/valsartan therapy in patients with heart failure and reduced ejection fraction, European Heart Journal Supplements, Volume 23, Issue Supplement_G, December

2021, suab132.039, <https://doi.org/10.1093/eurheartj/suab132.039>

12. Birtolo L I, Prosperi S, Monosilio S, Cimino S, Filomena D, et al. 282 Follow-up of hospitalized

COVID-19 survivors: assessment of short- and long-term cardiovascular sequelae after SARSCoV-

2 infection, European Heart Journal Supplements, Volume 23, Issue Supplement_G, December 2021, suab135.039, <https://doi.org/10.1093/eurheartj/suab135.039>

13. Figliozzi S, Georgiopoulos G, Aquaro G D, Bauer K, Monti L, Filomena D, Pica S, Censi S, Lopez

P, Quattrocchi G, Servato M L, Schwitter J, Andreini D, Bogaert J, Masci P G, Late gadolinium

enhancement predicts adverse clinical outcome in patients with mitral valve prolapse/mitral

annulus disjunction, European Heart Journal - Cardiovascular Imaging, Volume 22, Issue

Supplement_2, June 2021, jeab090.048, <https://doi.org/10.1093/ehjci/jeab090.048>

14. Filomena D, Cimino S, Monosilio S, Birtolo L I, Galea N, Franccone M, Mancuso G, Riccio F,

Pierucci N, Pedrizzetti G, Tonti G, Fedele F, Maestrini V, Agati L. Misalignment of hemodynamic forces in the left ventricle is associated with adverse remodeling following STEMI, European Heart Journal - Cardiovascular Imaging, Volume 22, Issue Supplement_1, January 2021, jeaa356.283, <https://doi.org/10.1093/ehjci/jeaa356.283>

15. Monosilio S, Filomena D, Cimino S, Neccia M, Luongo F, Mariani M, Birtolo L I, Benedetti G, Fedele F, Maestrini V, Agati L. Improvement of left ventricular systolic performance during sacubitril/valsartan in a cohort of patients with heart failure and reduced ejection fraction, European Heart Journal - Cardiovascular Imaging, Volume 22, Issue Supplement_1, January 2021, jeaa356.157, <https://doi.org/10.1093/ehjci/jeaa356.157>

For references:
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Prof. Jan Bogaert: jan.bogaert@uzleuven.be

LAST SAVED

Roma 05/10/2023

Dott. Domenico Filomena