

Curriculum of scientific and teaching activity

Personal information

Name: Luna GARGANI

Born in Prato on March 20th 1981

Address: piazza Dante Alighieri 2, Pisa

Mobile phone: 338 6115009

Email: luna.gargani@unipi.it

lunagargani@gmail.com

Current position

- Ricercatore universitario di tipo a) at the University of Pisa, Settore Scientifico Disciplinare MED/11- Malattie dell'apparato cardiovascolare (dal 2 Maggio 2024 Settore Scientifico Disciplinare MEDS-07/B), Department of Surgical, Medical and Molecular Pathology and Critical Care Medicine
- Since October 2018 she has obtained the Abilitazione Scientifica Nazionale (II fascia) for:
 - 06/D1 MALATTIE DELL'APPARATO CARDIOVASCOLARE E MALATTIE DELL'APPARATO RESPIRATORIO
 - 06/B1 MEDICINA INTERNA

Bibliometric indices (as at 2 June 2024)

- SCOPUS: h-index 50, total quotes 9911
- ISI Web of Knowledge: h-index 46, total quotes 7922
- Google Scholar: h-index 57, total quotes 14666, i10-index 128

Education

- Diploma di Maturità, Convitto Nazionale "Cicognini" di Prato, Liceo Classico Europeo (1995-2000) (final mark 100/100).
- Medical Doctor Degree in Medicine and Surgery from the University of Pisa (2000-2006) (final mark 110/110 cum laude and a recognition of merit for thesis work).
- Fellowship in Cardiology, University of Siena (dal 2007-2011) (final mark 70/70 cum laude).
- PhD degree in Cardiovascular Pathophysiology, University of Pisa (2012-2014)

(final mark 70/70 cum laude).

Training or research activities at qualified Italian or foreign institutions

- Institute of Clinical Physiology – National Research Council, Research Area of Pisa.
- From 16 January 2012 to 31 December 2020: Ricercatore (I livello).
- From 1 January 2021 to 31 January 2022: Primo Ricercatore (II livello)

Clinical research activity in the field of clinical cardiology and application of imaging techniques to cardiovascular diseases, in particular echocardiography, lung ultrasound and point-of-care ultrasound.

- Research fellow at the Northwestern University, Feinberg School of Medicine, Chicago, under the supervision of Prof. Mihai Gheorghiade, for the project "Ultrasound to assess pulmonary congestion in heart failure" (August-September 2005).
- Research fellow at the Northwestern University, Feinberg School of Medicine, Chicago, under the supervision of Prof. Peter S. Pang and Prof. Mihai Gheorghiade, for the project "Dynamic variations of pulmonary congestion assessed by long ultrasound in patients with acute heart failure syndromes" (March-May 2011).
- Cultore della Materia in Cardiovascular Diseases at the University of Pisa (2020/2023).
- Member of the Board of the European Association of Cardiovascular Imaging (EACVI) (from December 2022).
- Co-Chair of the Certification and Accreditation Committee of the European Association of Cardiovascular Imaging (EACVI) (from December 2022).
- Deputy Chair of the Certification and Accreditation Committee of the European Association of Cardiovascular Imaging (EACVI) (2018-2022).
- Member of the ESC Subspecialty Certification Section for the ESC Council on Education Standards (from December 2023).
- Member of the Abstract Reviewing Committee for the European Society of Cardiology (ESC) and the European Association of Cardio-Vascular Imaging (EACVI) (from 2017).
- Member of the Web & Communication Committee of the European Association of Cardiovascular Imaging (EACVI) (2014-2016).
- Member of the Council Board - ESC Council on Standards of Education and Accreditation for the European Society of Cardiology (ESC) (2018-2020).
- Member of the Membership Committee for the European Society of Cardiology (ESC) (2020-2022).

- Associate Faculty Member for Faculty of 1000 Medicine, section «Cardiovascular Disorders» (2008-2016).
- Member of the Italian Scientific Liaison Committee for the International Consensus Conference on Lung Ultrasound for WINFOCUS (dal 2009).
- Member of the Scientific Committee of the European Association of Cardiovascular Imaging, EACVI (2010-2012).
- Member of the Board of the Club 35 (Club of Young Experts in Cardiovascular Imaging) of the European Association of Cardiovascular Imaging, EACVI (2012-2014).
- Chair of the Subcommittee in Transthoracic Echocardiography of the Certification and Accreditation Committee of the European Association of Cardiovascular Imaging EACVI, and coordinates and manages the European accreditation examination for transthoracic echocardiography for a total of approximately 600 participants per year (dal 2012 al 2022).
- Member of the Taskforce Committee for the Certification Program of the European Association of Preventive Cardiology (EAPC) (2021).
- Member of the Synergia Evaluation Commission for the Swiss National Foundation as referee of submitted scientific projects (dal 2021).
- Evaluator of submitted scientific projects such as Call Credits & Projects Call 2021 for the Fund for Scientific Research - Fonds de la Recherche Scientifique FNRS (dal 2021).
- Voter member of the Ordinary General Assembly of the European Society of Cardiology ESC (2021).
- Member of the Philips EU Radiology Advisory Community (2021).
- Fellow of the European Society of Cardiology (FESC).
- Member of the European Association of Cardiovascular Imaging.
- Member of the European Association of Heart Failure.

Clinical activities

- Unità Operativa Cardiology 1, Azienda Ospedaliero Universitaria Pisana: dirigente medico from 1 February 2022.
- Institute of Clinical Physiology-Fondazione Toscana "G. Monasterio", section of Pisa and Massa: clinical activity in intensive and sub-intensive cardiological unit (2004-2011).
- Casa di Cura San Rossore, Pisa: cardiological counselling activities for outpatient and hospitalized patients (2013-2021).

- Polyambulatory S. Giuseppe, Pontedera: cardiological counselling activities for outpatient patients (2013-2015).
- Center of Sports Medicine, Dr. Faraggiana, Pisa: cardiological counselling activities for outpatient patients (2013-2015).
- Polyspecialist Medical Center Porta a Terra, Livorno: cardiological counselling activities for outpatient patients (2013-2015).

Scientific projects

- Principal Investigator of the following funded projects (admitted for funding on the basis of competitive bids that provide for peer review):
 - PERCHE' (Parental Exposure to environmental Radiation as an occult cause of Congenital HEart disease), financed by Tuscany Region – POR CRO FSE 2007-2013 for a total of 30000 euros. In collaboration with the Meyer University Hospital in Florence. Principal Investigator (2012-2014).
- Head of Operational Unit of the following funded projects (admitted for financing on the basis of competitive bids that provide for peer review):
 - OPTIMISED - Creation of an optimized path for data flow and patient management with clinical and radiological picture compatible with COVID-19. Financed by Tuscany Region, Bando COVID 2020 for a total of 400000 euros. Head of Operational Unit (2021-2023).
 - LUNg ultrasound to monitor and GUIDE fluid management in acute heart failure: a new model for personalized healthcare in emergency medicine (LUNGUIDE). Financed by Tuscany Region, Bando Salute 2018 for a total of 391930 euros. Head of Operational Unit (2020-2023).
 - “LUNCH (Lung Ultrasound for early detection of silent and apparent aspiration in infants and young CHildren with cerebral palsy and other developmental disabilities: a new, fast, safe, cost-effective infant-friendly imaging tool to easily monitor feeding, improve outcomes and reduce morbidities)”, funded by the Ministry of Health - Finalized Research Bando 2018 for a total of 406000 euros. In collaboration with the Stella Maris Foundation and the Pisana Hospital-University Company. Head of Operational Unit (2019-2022).
 - “Choosing Wisely in Pulmonary Arterial Hypertension: redefining current screening, follow-up and prognostic procedures in patients with Pulmonare Arteriale Hypertension”, funded by the Ministry of Health - Finalized Research Bando 2016 for a total of 416650 euros. In collaboration with SDN (Istituto di Ricerca e Diagnostica Nucleare) and II University of Naples. Head of Operational Unit (2018-2022).
 - “Exploring the potentialities of lung ultrasound in pediatric cardiac surgery: an easy, fast, inexpensive, radiation-free, but still surprisingly underutilized diagnostic tool”, funded by the Ministry of Health - Finalized Research Bando 2013 for a total of Euro 250000. In collaboration with Fondazione Toscana G. Monasterio. Head of Operational Unit (2014-2018).
 - “Early treatment of exercise-induced pulmonary hypertension in systemic sclerosis”, funded by the Ministry of Health - Finalized Research Bando 2011 for a total of 333217. In collaboration with the University of Florence and the Hospital Niguarda Ca' Granda. Head of Operational Unit (2012-2016).

- Participant in the following funded projects (admitted for funding on the basis of competitive bids that provide for peer review):
 - SECURE (Systemic sclerosis patients Evaluated by Chest Ultrasound: Redefining the diagnostic approach to long involvement), funded by Tuscany Region - Regional Health Research Programme 2009 for a total of 397000 euros. In collaboration with the University of Florence and University of Pisa. Workpackages Coordinator 1-4 (2010-2013).
 - LUST (LUNG WATER by Ultra-Sound GUIDED TREATMENT TO PREVENT DEATH AND CARDIOVASCULAR COMPLICATIONS IN HIGH RISK END STAGE RENAL DISEASE), funded by the European Renal Association for EUR 1000000. Multicenter study involving 25 European Units of Cardiology and Nephrology. Coordinator of the core laboratory for pulmonary ultrasound and co-coordinator for the core lab for echocardiography (2012-2021).
 - "HEARTEN. A cooperative mHEALTH environment targeting adherence and management of patients suffering from Heart Failure". Multicenter study funded under European Union's Horizon 2020 research and innovation programme under grant agreement No 643694. Staff involved in the clinical trial (2014-2019).
 - Detecting the vulnerable carotid plaque: "The Carotid Artery Multi-modality imaging Prognostic (CAMP) study" – Implications for stroke and cognitive decline prediction in asymptomatic carotid artery disease. Financed by Tuscany Region, Bando Salute 2018 for a total of 717000 euros. Staff involved in the clinical trial (dal 2021).
 - The Carotid Artery Multimodality Protocol – ACTing through dietary interVENTion (CAMP-ACTIVE). Financed by the Ministry of University and Research, Bando PRIN 2022 for a total of 291016 euros. Staff involved in the clinical trial (dal 2023).

Organization, direction and coordination of national and international research groups, or participation

- Collaboration with the Instituto de Cardiologia do Rio Grande do Sul, Porto Alegre (Dr. Marcelo Miglioranza) on the use of lung ultrasound in patients with acute and chronic heart failure (from 2009).
- Collaboration with the Institute of Biocybernetics and Biomedical Engineering, Warsaw, within the framework of the joint research project IFC-CNR IBIB-PAN "Modelling of the cardio-respiratory system and simulation of the cardiopulmonary interaction in patophysiological conditions and during circulatory and respiratory mechanical assistance" (2010-2016).
- Participation in the DORIAN study (Developmental ORIgins of healthy and unhealthy AgeiNg: the role of maternal obesity) for the part of echocardiography in humans and animals (2012-2017). <http://easo.org/project/dorian/>
- Collaboration with the Niguarda Ca' Granda Hospital for the study "BioImpedentiometry, Lung UltraSound and cONGestion in Heart Failure (BLUEMOON)". Coordination of the lung ultrasound part (2015-2018). <https://clinicaltrials.gov/ct2/show/NCT02394470>
- Collaboration with the University Hospital of Florence for the project "Cardiopulmonary ultrasound

changes during acute heart failure hospitalization" (dal 2016).

- Collaboration with the University Hospital of Pisa for the project "Fibrotic Interstitial Pneumonia: multidisciplinary approach in diagnosis, prognosis and management" (dal 2016).
- Study "CONVERT-H: CONivaptan as EmeRgent Therapy in Hyponatremia". A Phase 3b, Randomized, Double-Blind, Placebo-Controlled, Multi-Center Study to Assess the Safety and Efficacy of Conivaptan in Symptomatic Acute Decompensated Heart Failure (ADHF) Subjects with Hyponatremia. Studio sponsored by Astellas. Lung Ultrasound Instructor for U.S. Centers involved in the study (2008-2009).
- Member of the Scientific Liason Committee of the 1st International Consensus Conference on Pleural and Long Ultrasound (2009-2012).
- Co-Principal Investigator of the research project Lung ultrasound for the early diagnosis of COVID-19 pneumonia: an international multicenter study, which has coordinated 20 Centers in Europe and 2 in the United States to establish the role of pulmonary ultrasounds in the Early Diagnosis of Pneumonia by Covid-19 (2020-2021).
- Co-Principal Investigator of the RIGHT-NET (Right Heart International Network) research group for the study of the response of the anatomic-functional unit of the right heart and pulmonary circle during physical exercise in various clinical conditions, involving Italian and European centres Promoters: Hospital Company - University "San Giovanni di Dio e Ruggi d'Aragona", Salerno and Institute of Clinical Physiology of the National Research Council (since 2015).
- Principal investigator of the study "SCLAIRE: Integrated non-invasive rest and exercise cardiopulmonary evaluation in scleroderma". Promoters: Institute of Clinical Physiology of the National Research Council and Fondazione Toscana G. Monasterio (since 2015).
- Member of the Steering Committee of the FoCUS (Focus Cardiac Ultrasound) Project Task Force. Promoter: European Association of Cardiovascular Imaging (EACVI) (since 2017).
- Member of the Group of Young Researchers Under 40 of SIEC (Società Italiana di Ecografia Cardiovascolare, 2017-2018).
- Member of the Steering Committee/Expert Panel for the definition of myocardial involvement in scleroderma. Promoters: World Scleroderma Foundation and Heart Failure Association (European Society of Cardiology ESC) (since 2019).
- Member of the Steering Committee of the guidelines of the American Society of Echocardiography "Echocardiographic Assessment of the Right Heart and Pulmonary Hypertension" (since 2021).
- Member of the Steering Committee of the Society of Critical Care Medicine (SCCM) "Ultrasound Focused Update" guidelines (since 2022).
- Member of the Steering Committee "Multimodality Cardiac Imaging in Patients With Tropical Diseases. A Scientific Statement of the European Association of Cardiovascular Imaging (EACVI) of the ESC and the Brazilian Society of Cardiology (DICSBC)" (since 2024)

- Patent for the software "iULC: individualized long-water-based cardiac and pulmonary monitor ver. 1.0".

The software is aimed at the development of a new fully automated independent operator method for the objective and quantitative identification of ultrasonic B-lines, as an early sign of pulmonary extravascular water (since 28-01-2013).

- Consultant for Caption Health
- Consultant for General Electrics Healthcare
- Consultant for Philips Healthcare

Awards

- Finalist, Young Investigator Award, Euroecho 2006, Prague.
- First prize for the best abstract submitted under 35, I Congress Institute of Clinical Physiology, 2009.
- Second prize for the best abstract submitted under 35, II Congress Institute of Clinical Physiology, 2010.
- Prize "Gabriele Monasterio" in the context of the Congress "Research Technology and Development", Mesagne 2010.
- SIR Award 2012 (Italian Society of Rheumatology) of 1000 euros for best oral communication during the National Congress, titled "Borderline right ventricular involvement in patients with systemic sclerosis without pulmonary hypertension".
- Reviewer Award, in distinguished recognition of contributions to the European Heart Journal – Cardiovascular Imaging as a reviewer in 2014.

Educational academic activity

- Coordinator and teacher of the Integrated Course: Malattie dell'Apparato Cardiovascolare (Modulo dell'insegnamento Malattie dell'Apparato Cardio-vascolare e Scienze Dietetiche Applicate Cod. 405FF) for the Corso di Laurea in Dietistica, 24 hours, 3 CFU (academic year 2023-2024).
- Coordinator and Teacher of the Attività Didattica Elettiva: Ade - Gestione del Paziente Cardiologico - LIVORNO (Cod. 755ZW) per Corso di Laurea in Infermieristica, 8 hours, 1 CFU (academic year 2022-2023 and 2023-2024).
- Coordinator and Teacher of the Attività Didattica Elettiva: Ade - Gestione del Paziente Cardiologico - LUCCA (Cod. 755ZW) per Corso di Laurea in Infermieristica, 8 hours, 1 CFU (academic year 2022-2023 and 2023-2024).

- Teacher: Tirocinio Professionalizzante Medico-chirurgico 2 (Cod. 1856Z) per Corso di Laurea Magistrale Ciclo Unico 6 anni in Medicina E Chirurgia (academic year 2022-2023 and 2023-2024).
- Teacher: Fellowship in Cardiovascular Diseases (academic year 2022-2023 and 2023-2024).
- Teacher: Fellowship in Sports and Physical Exercise Medicine. Diseases of the cardiovascular system: pathogenesis and clinical principles (Teaching Module Code Z1592) CdS MEDSPO-S4 MEDICINE OF SPORT AND EXERCISE (academic year 2022-2023 and 2023-2024).
- Teacher of the Master's Degree II level in Dog and Cat Cardiology, University of Pisa (2023-2024).
- Teacher of the Master's Degree I level "Nursing in Critical Areas", University of Pisa (2022-2023, 2023-2024).
- Teacher of Master's Degree II level "Intensive Cardiological Therapy", University of Padua (2021-2023).
- Lesson for the Fellowship and PhD Research of the University of Parma entitled "Lung ultrasound, a new tool for clinics: applications and perspectives" (05-06-2013).
- Elective Educational Activity, University of Florence, Faculty of Medicine and Surgery, IV year, entitled "Role of ultrasound and MRI of the heart in rheumatic diseases" (24-04-2015).
- Elective Educational Activity, University of Pisa, Faculty of Medicine and Surgery, 6th year, entitled "Emergency pulmonary ultrasound" (23-05-2016).
- Frontal lesson in the course of Physiology for the three-year Bachelor of Science in Biomedical Engineering of the University of Pisa, entitled "Electrocardiogram: physiological bases and applications" (09-05-2017).
- Elective Educational Activity, University of Florence, Faculty of Medicine and Surgery, IV year, entitled: "Role of thoracic ultrasound in rheumatic diseases" (14-05-2021).
- Relatore and Contro-relatore of the Master's thesis in Medicine and Surgery for the University of Pisa (students Ida Rebecca Bort, Matteo Baldini, Gabriele Primitivo, Girolamo Rubina Giulia, Caterina Mari) and for the Università di Firenze (studenti Valentina Lucarelli, Morena Musco, Michela Sollazzo, Luca Pedone, Marco Devinciente, Silvia Stefanelli, Simon David).
- Relatore of the Fellowship thesis on diseases of the cardiovascular system (Dr. Erica Michelotti, Dr. Angelica Lossi) for the University of Pisa.

Other educational and training activities

Since 2006 he has held more than 60 pulmonary ultrasound courses in Europe and the United States, including:

- Teacher and Scientific Leader for the Pisana Hospital-University Company of the Course TORACAL ECOGRAPHY IN INTERNISTIC Field: FROM SEMEIOTICS TO CLINICAL APPLICATIONS (2014-2018).
- Teacher for the Pisa Hospital-University Company in the course Acute Respiratory Insufficiency: USE OF NOT INVASIVE VENTILATION (dal 2016 ad oggi).
- Teacher of the Quarterly Course in Heart Magnetic Resonance of the Tuscany Foundation G. Monastery FTGM (2016-2021).
- Teacher in pulmonary ultrasound courses for WINFOCUS (World Interactive Network Focused On Critical UltraSound) (dal 2009).
- Lecturer of pulmonary ultrasound for the Italian Federation of Pediatric Physicians (2011-2014).
- Teacher of the Master's degree in Echocardiography in ischemic heart disease for the National Research Council (accredited by the Ministry of Health) (2005-2009).
- Teacher of the Master School of Scientific Writing for the National Research Council (accreditato dal Ministero della Salute, 2007).

Editorial activity

- Editor for the Heart Failure Clinics, Special Issue "The Right Heart and Pulmonary Circulation Unit" (2018-2019).
- Associate Editor of Journal Cardiovascular Ultrasound (since 2017).
- The Ultrasound Journal Section Editor (since 2015).
- Member of the Editorial Board of the European Heart Journal – Cardiovascular Imaging (since 2018).
- Member of the Editorial Board of the Journal of Scleroderma and Related Disorders (since 2017).
- Member of the Editorial Board of the Giornale Italiano di Cardiologia (2014-2018)
- Reviewer for the journals:
 - European Journal of Cardiovascular Medicine - Cardiovascular Ultrasound - Plos One - Critical Care - Anesthesiology - Journal of Clinical Investigation - Clinical and Experimental Rheumatology
 - Ultrasonic in Medicine and Biology - Coronary Artery Disease - Pediatrics - Arthritis Care & Research - The Journal of Thoracic Disease

Direction or participation in editorial committees of textbooks

- Editor of the book Cardiopulmonary Point of Care Ultrasound.

Editors: Hatem Soliman-Aboumarie, Marcelo Haertel Miglioranza, Luna Gargani, Giovanni Volpicelli. Springer 2023.

Lectures in national and international congresses and conferences

- American Heart Association Congress. Oral presentation: "PROGNOSTIC VALUE OF CARDIAC-CHEST ULTRASOUND RISK SCORE IN ACUTE CORONARY SYNDROMES" (10-11-2008).
- European Congress of Cardiology, Stockholm. Oral presentations: "Exercise-induced pulmonary hypertension in systemic sclerosis is mediated by an increase in lung resistance" and "Ultrasound long comets as prognostic determinant in heart disease" (01-09-2010).
- European Congress of Cardiology, Paris. Oral presentation: "Prognostic value of right ventricular function assessed by the tricuspid annular plane systolic excursion in acute myocardial infarction" (30-08-2011).
- Congress "4th International Cardio Event. Cardiology towards the future. Innovation in Cardiology", Florence. Invited speaker: "NEW DIAGNOSTIC AND THERAPEUTIC SOLUTIONS IN HEART FAILURE. Non-invasive ultrasound assessment" (19-01-2012).
- Congress Italian Society of Rheumatology, Milan. Oral communications: "CARDIAC INVOLVEMENT IN SYSTEMIC SCLEROSIS: THE ADDED VALUE OF MAGNETIC RESONANCE IMAGING"; "BORDERLINE RIGHT VENTRICULAR INVOLVEMENT IN PATIENTS WITH SYSTEMIC SCLEROSIS WITHOUT PULMONARY HYPERTENSION"; "B-LINES FOR THE SCREENING OF INTERSTITIAL LUNG DISEASE IN PATIENTS WITH VERY EARLY DIAGNOSIS OF SYSTEMIC SCLEROSIS (VEDOSS): EXPERIENCE FROM A SINGLE EUSTAR VEDOSS CENTER" (dal 22-11-2012 al 23-11-2012).
- "4th CardiolFC Congress". Presentation on Invitation: "What the Ejection Fraction doesn't say. Hypertension and pulmonary congestion" (27-03-2013).
- ERA (European Renal Association) Congress, Istanbul. Invited speaker: "The importance of assessing lung congestion in patients with heart disease" (18-05-2013).
- Congress of the Regional Section of the Italian Society of Internal Medicine. Presentation on invitation: "Ultrasound of the lung: how is it done?" (08-06-2013).
- 4th Meeting of the Italian Council of PhD Fellows "PROGRESS IN CARDIOVASCULAR RESEARCH", Erice. Presentation on invitation: "Emerging imaging modalities for evaluation of pulmonary involvement" (08-11-2013).
- Euroecho Congress, Istanbul. Invited speaker: "Acute dyspnea and hypoxemia: echo of the heart & lungs" from 11-12-2013.
- Congress "6th International Cardio Event. Cardiology towards the future. Choosing wisely to innovate", Florence. Invited speaker: "Cardiologists and Pulmonologists: are you ready for lung ultrasound" (06-02-2014).
- Conference "Perspective in Internal Medicine Lung Ultrasound in clinical practice". Presentation on invitation: "Utilities of B-Lines in the internalist patient: from water to fibrosis" (07-02-2014).
- ERA (European Renal Association) Congress, Amsterdam. Invited speaker: "Ultrasound assessment of lung congestion in Nephrology" (31-05-2014).
- Congress "PNEUMOLOGY 2014", Milan. Presentation on invitation: "Thoracic ultrasound: possibilities and prospects" (05-06-2014).
- European Congress of Cardiology, Barcelona. Oral presentation: "Subtle cardiac involvement detected by cardiac magnetic resonance in systemic sclerosis" (31-08-2014).
- EACTA (European Association of Cardiothoracic Anaesthesiology) Congress, Florence. Invited

speaker: "WORKSHOP: HEART AND LUNG ULTRASOUND. The essentials" (18-09-2014).

- 48th Cardiology Conference "De Gasperis", Milan. Teacher of the "Ecostream 2" Minicourse. (23-09-2014)

- Advanced course WINFOCUS "Pulmonary ultrasound point-of-care", Orbassano. Teacher (dal 03-11-2014 al 04-11-2014).

- Annual meeting Belgian Society of Nephrology (Nederlandstalige Belgische Vereniging Nefrologie), Gent. Invited speaker: "New techniques to estimate volume status in dialysis patients: LUNG ULTRASOUND" (20-11-2014).

- Euroecho and other imaging modalities congress, Wien. Invited speaker: "Acute heart failure. Ultrasound long evaluation" (05-12-2014).

- Level I Course "Thoracic Ultrasound in Internal Medicine: From semiotics to clinical applications". Teacher (dal 20-02-2015 al 13-11-2015).

- "Lung Ultrasound for the Cardiologist Course", Sofia University - St. Kliment Ohridski, Bulgaria. Teacher (dal 12-03-2015 al 13-03-2015).

- National Congress of the Italian Society of Ecocardiography (SIEC), Naples. Presentation on invitation: "Acute heart failure. Lung echo: hemodynamic congestion or clinical congestion?" (17-04-2015).

- National Congress "Heart failure", University of Siena. Presentation on invitation: "Eco Lung in the management of the patient with decompensation" (23-04-2015).

- Course "Lung Ultrasound: A practical approach", The Royal Wolverhampton Hospital. Teacher (dal 07-05-2015 al 08-05-2015).

- European Congress of Cardiology, ESC Congress London. Oral presentation: "Reversible abnormal right ventricular function at follow-up is associated with better survival in patients with chronic systolic heart failure" (01-09-2015).

Acute Cardiovascular Care Association Congress, Wien. Invited speaker: "Diagnostic tools in the management of acute heart failure. Echocardiography and lung ultrasound" (18-10-2015).

- Conference "Idiopathic Pulmonary Fibrosis: A Disease Diagnostic and Treatable in the Interstitial Pneumonia", Hospital Cisanello, Pisa. Presentation on invitation: "Lung ultrasound: a new opportunity" (23-10-2015).

- Congress "Livorno Cuore. National Meeting of Cardiology and Clinical Echocardiography", Livorno. Presentation on invitation: "Lung ultrasound: methodology and clinical applications" (24-10-2015).

- Workshop "The laboratory of cardiac imaging in cardiac failure", Trieste. Presentation on invitation: "Ventricular dysfunction occult and not. Pulmonary ultrasound" (31-10-2015).

- XVI Course of Updating in Nuclear Cardiology - Italian Group of Nuclear Cardiologists (GICN) 2015. Presentation on invitation: "Prognostic stratification in ischemic heart disease and heart failure Comparison techniques: echocardiography" (06-11-2015).

- Euroecho and other imaging modalities congress, Wien.

Invited speaker: "Pulmonary embolism: role of imaging in the management" (04-12-2015).

- 4th Systemic Sclerosis World Congress Lisbon, Portugal.

Oral presentation: "Early detection of cardiac involvement by magnetic resonance: clinical correlations in systemic sclerosis" (19-02-2016).

- "4th Lung Ultrasound Course", St. Bartholomew's Hospital, London. Teacher (dal 03-05-2016 al 04-05-2016).

- European Society of Cardiology ESC Congress, Rome.

Invited speaker: "Acute ischaemic syndrome with LBBB and circulatory collapse" (28-08-2016).

- Euroecho and other imaging modalities congress, Leipzig.

Invited speaker: "Imaging the effect of anti hypertensive treatment on the heart" (09-12-2016).

- 51st Cardiology Conference "De Gasperis", Milan.

Invitation report: "Imaging in decision-making processes of heart failure. Lung ultrasound: why not do without it" (28-09-2017).

- 52nd Cardiology Conference "De Gasperis", Milan.

Invitation report: "Not only heart: the added value of pulmonary ultrasound" (25-09-2018).

- European Heart Failure Association Congress, Athens.

Invited speaker: "A case of a pregnant woman with heart failure" (27-05-2019).

- Euroecho Congress, Milan.

Invited speaker: "Acute dyspnea and shock" (06-12-2018).

- Euroecho and other imaging modalities congress, Wien.

Invited speaker: "Around the heart: pericardium, aorta and great vessels and lung" (06-12-2019).

- Euroecho and other imaging modalities congress, Wien.

Invited speaker: "Role of lung ultrasound in shock patients" (06-12-2019).

- WINFOCUS Mexico – VII International Congress of Ultrasound in Intensive and Emergency Therapy. Digital Event

Invited speaker: "How, why and when to use lung ultrasound in the COVID-19 pandemic" (08-04-2021).

- Digital Congress SIECVI (Italian Society of Ecocardiography and Cardiovascular Imaging).

Invited speaker: "Integrated cardiopulmonary ultrasound: what evidence" (21-11-2020).

- EACVI Best of Imaging Congress. Digital event.

Invited speaker: "FoCUS in dyspnea: the role of lung ultrasound" (11-12-2020).

- WINFOCUS World Congress. Digital event.

Invited speaker: "Sonographic interstitial syndrome: one pattern does not fit for all" (12-06-21).

- European Society of Cardiology ESC Digital Congress.

Invited speaker: "Essential update on FoCUS: how do I best use foCUS echocardiography and where do I stop?" (28-08-2021).

- European Society of Cardiology ESC Digital Congress.

Invited speaker: "Chest X-ray and lung ultrasound for the cardiologist" (30-08-2021).

- European Society of Cardiology ESC Congress 2022.

Invited speaker: "How to assess microvascular disease by stress echocardiography" (27-08-2022).

- Euroanesthesia 2022, European Society of Anaesthesiology and Intensive Care Congress, Milan.

Invited speaker: "Lung ultrasound: how to assess and monitor your patient" (05-06-2022).

- Johns Hopkins Multimodality Imaging Series.

Invited speaker: "Lung ultrasound in heart failure" (17-01-2023).

- EchoLisbon Congress.

Invited speaker: "Lung ultrasound in heart failure", "How to evaluate the left atrium by echocardiography", "Peripheral artery disease and aortic disease" (02-12-2023).

- Sant'Anna Higher School. PhD in Translational Medicine, Imaging Techniques in Biomedical Research: from Cells to Humans (2022-2023).

- XXI National Congress SIECVI 2024.

Invited Speaker "Heart-Lung Interaction: The Role of the Lung Echo".

European specialization diplomas recognized by international boards

- In 2010 she achieved European accreditation with the European Association of Echocardiography for transthoracic echocardiography, with recertification in 2016 and 2021.

Other information

- Two maternity leaves: from 24/05/2016 to 24/10/2016 and from 10/05/2020 to 10/10/2020.
- Certificate in English Language UNIVERSITY OF CAMBRIDGE ESOL LEVEL 3 – ADVANCED, GRADE A.
- Autonomous in performing and interpreting transthoracic echocardiogram and lung ultrasound in the experimental animal (pig, mouse, rat).
- Complementary exams and V year degree level of piano.

Pisa, 1 Giugno 2024

Autorizzo il trattamento dei dati personali presenti nel cv ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 “Codice in materia di protezione dei dati personali” e del GDPR (Regolamento UE 2016/679).

In fede

Luna Gargani

