Translational Non-invasive Cardiovascular Imaging

A research continuum from biomedical science to clinical practice and a new patient-centered paradigm

January 25th-27th, 2018 - Pisa (Italy)
Polo Didattico Fibonacci
University of Pisa - Aula Magna Fratelli Pontecorvo
Largo Bruno Pontecorvo
Translational Non-invasive Cardiovascular Imaging

Despite the numerous therapeutical improvements and technological advancements, cardiac pathologies still represent major determinants of global patients’ morbidity and mortality and of overall sanitary expenditures.

In this respect, in the last decades, non-invasive cardiac imaging has reached a major role in the characterization of Cardio-Vascular Disease, aiding clinical decision-making and guiding clinicians’ diagnostic, pharmacologic and invasive therapeutic strategies.

Accordingly, the relevant advances in this field, prompted by constant technical developments, claim for attention and continuous updating. In particular, recent evidences have underscored the relevance of a multi-modality imaging approach for a better characterization of cardiac mechanics, offering the unique opportunity to evaluate cardiac dynamics in a completely non-invasive manner.

In the present Symposium will be presented a new global approach to cardiovascular imaging: from biological to clinical practice. In particular it will be the occasion to discuss about the translational cardiology, that represents the future development of non invasive cardiovascular imaging.

The present Symposium is intended for Imaging Specialists but also clinicians, dealing, in their daily routine, with questions arising from instrumental and biomarkers findings. In particular, the Symposium aims at providing a clinical update to the most relevant advancement in the different non-invasive cardiac imaging modalities with a special interest to the additive role of Translational Non-invasive Cardiovascular Imaging (comprehensive of biomedical and instrumental approaches) in the evaluation of the distinct cardiac disease phenotypes.

Each “Hot” Topic of the Symposium, including Cardiomyopathies, Ischemic Heart Disease, Valvular and Vascular Disease, Devices and Masses, includes sessions dedicated to each Imaging modality (Echocardiography, Magnetic Resonance Imaging, CT, Nuclear and Hybrid Imaging and biomarkers) with extended and comprehensive lectures held by the major experts in that field.

Discussions, with a clear integrated approach, will summarize and focus the attention on the key points for clinical practice and major improvements in cardio-vascular patients’s management.
DIRECTOR
Prof. Vitantonio Di Bello
University of Pisa

CO-DIRECTORS
Prof. Davide Caramella
University of Pisa
Prof. Michele Emdin
Scuola Superiore S. Anna, Fondazione G. Monasterio

PROMOTED BY
Fondazione Internazionale Menarini
Centro Direzionale Milanofiori
Edificio L – Strada 6
20089 Rozzano (Milan, Italy)
Phone: +39 02 55308110
Fax: +39 02 55305739
E-mail: milan@fondazione-menarini.it
www.fondazione-menarini.it

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Thursday, January 25th, 2018

02.30 p.m.  
Authorities welcome

03.00 p.m.  
Introduction to congress topics

First Session - Cardiomyopathies: up-to-date

Chairmen  
Paolo Marino (Novara, I)  
Francesco Fedele (Rome, I)

03.30 p.m.  
ECHOCARDIOGRAPHY  
Echocardiography: always the first imaging tool for diagnosis of cardiomyopathy. Strenght and weakness  
Speaker: Iacopo Olivotto (Florence, I)  
Discussant: Silvia Pradella (Florence, I)

04.00 p.m.  
MRI  
The value of MRI in diagnosis of cardiomyopathy: second-step tool or simply the gold standard?  
Speaker: Giovanni Aquaro (Pisa, I)  
Discussant: Filippo Cademartiri (Montreal, Ca)

04.30 p.m.  
NUCLEAR  
Incremental value of nuclear imaging in diagnosis of cardiomyopathy: focus on sarcoidosis and amyloidosis  
Speaker: Riemer Slart (Groningen, NL)  
Discussant: Assuero Giorgetti (Pisa, I)

05.00 p.m.  
CT  
Cardiac computer tomography and cardiomyopathies: simply the shadow of MRI?  
Speaker: Gianluca Pontone (Milan, I)  
Discussant: Lorenzo Faggioni (Pisa, I)
05.30 p.m.  BIOMARKERS
Which biomarker(s) for cardiomyopathy?
Speaker: Michele Emdin (Pisa, I)
Discussant: Giuseppe Vergaro (Pisa, I)

06.00 p.m.  MULTIMODALITY
Using multi-imaging for the detection or verification of technical issues during the utilization of left ventricular assist devices in patients with advanced heart failure
Speaker: Massimo Maccherini (Siena, I)
Discussant: Ketty Savino (Perugia, I)

06.30 p.m.  BIOMARKERS
Heart failure: the arena of biomarkers
Speaker: Marco Metra (Brescia, I)
Discussant: Roberto Pedrinelli (Pisa, I)

07.00 p.m.  Opening Ceremony
Second Session - Valvular disease

Chairmen

*Francesco Romeo* (Rome, I)

*Maria Penco* (L’Aquila, I)

08.30 a.m. Aortic valve stenosis: check velocity but don’t forget the engine. The role of echocardiography
Speaker: *Marie-Annick Clavel* (Laval, Ca)
Discussant: *Lorenzo Conte* (Barga, I)

09.00 a.m. Ischemic mitral regurgitation: the lost island. Do we need an integrated imaging to find the route?
Speaker: *Francesco Grigioni* (Rochester, Usa)
Discussant: *Pompilio Faggiano* (Brescia, I)

09.30 a.m. Percutaneous mitral valve repair between dream and the real world. Could the integrated imaging change the future?
Speaker: *Fabio Guarracino* (Pisa, I)
Discussants: *Cristina Giannini* (Pisa, I)

10.00 a.m. Transcatheter aortic valve implantation: how to integrate computed tomography and echocardiography
Speaker: *Anna Sonia Petronio* (Pisa, I)
Discussant: *Marco De Carlo* (Pisa, I)

10.30 a.m. Micro-RNA and valvular heart disease-pathophysiological and clinical insights
Speaker: *Iacopo Fabiani* (Pisa, I)
Discussant: *Chiara Maria Mazzanti* (Pisa, I)

11.00 a.m. Coffee break
Third Session - Ischemic heart disease

Chairmen

Dante Luigi Chiappino (Massa, I)
Filippo Crea (Rome, I)

11.15 a.m. ECHO
Looking for specificity: novel evidences on the role of stress echo in IHD
Speaker: Lauro Cortigiani (Lucca, I)
Discussant: Emilio Pasanisi (Pisa, I)

11.45 a.m. MRI
Multi-parametric evaluation of CAD: cardiac MRI as the one-stop-shop for IHD
Speaker: Massimo Lombardi (Milan, I)
Discussant: Gianluca Di Bella (Messina, I)

12.15 a.m. NUCLEAR
The evolution of cardiac nuclear diagnosis of myocardial ischemia in the 21st century
Speaker: Hein J. Verberne (Amsterdam, NL)
Discussant: Alessia Gimelli (Pisa, I)

12.45 a.m. CT And HYBRID IMAGING
Coronary anatomy and myocardial perfusion: time to reconcile the two sides of the coin
Speaker: Leonardo Bolognese (Arezzo, I)
Discussant: Duccio Volterrani (Pisa, I)

01.15 p.m. BIOMARKERS
Acute myocardial infarction-biomarkers from a novel perspective
Speaker: Filippo Ottani (Forlì, I)
Discussant: Claudio Passino (Pisa, I)

01.45 p.m. Lunch
02.30-05.00 p.m.   YOUNG RESEARCH CORNER

Presentations and Posters

Davide Caramella (Pisa, I)
Vitantonio Di Bello (Pisa, I)
Michele Emdin (Pisa, I)
Iacopo Fabiani (Pisa, I)
Nicola Riccardo Pugliese (Pisa, I)

Chairmen

AORTIC VALVE
MicroRNAs distribution in different phenotypes of Aortic Stenosis
Veronica Santini - Pisa

Left ventricular rotational and strain analysis Using Real-Time 3D Speckle Tracking Echocardiography in Aortic Stenosis Patients Presenting with Left Ventricle Hypertrophy
Francesco Bandera - Milan

The integrated value of sST2 and global longitudinal strain in the early stratification of patients with severe aortic valve stenosis: a translational imaging approach
Ilaria Ambrosini - Pisa

MITRAL VALVE
Left heart strain parameters in asymptomatic patients with mitral regurgitation
Giulia Elena Mandoli - Siena

RIGHT VENTRICLE FUNCTION
Relative contribution of 3D radial and longitudinal endocardial contraction to right ventricle function
Francesco Bandera - Milan

LEFT VENTRICLE FUNCTION
Three-dimensional full automated software in the evaluation of the left ventricle function: from theory to clinical practice
Valentina Barletta - Pisa

LEFT VENTRICLE
From electric to mechanic: left ventricle mechanical dispersion as a marker of arrhythmogenic risk after myocardial infarction
Roberto Bitto - Messina

HEART FAILURE
Neurohormonal function across categories of systolic dysfunction in chronic heart failure
Giuseppe Vergaro - Pisa

Left ventricular ejection fraction and prognosis in chronic systolic heart failure
Alberto Aimo - Pisa

Left atrial function and quality of life in patients with chronic heart failure: the multicentric flash study
Matteo Cameli - Siena

Left atrial and ventricular longitudinal strain in the prediction of cardiovascular outcome in patients with heart failure and different ejection fraction
Giulia Elena Mandoli - Siena
Interactive role of Diastolic Dysfunction and Ventricular remodeling in Stage A and B Heart Failure

**Lorenzo Conte** - Pisa

Functional Evaluation of Heart Failure with Mid-Range vs Preserved Ejection Fraction by Exercise Gas Exchange Analysis and Stress Echocardiography

**Francesco Bandera** - Milan

Prognosis and risk stratification of patients with advanced heart failure by echocardiography: the probe score

**Matteo Cameli** - Siena

Haemodynamic changes associated with Cheyne-Stokes respiration in patients with heart failure: an echocardiographic study

**Alberto Giannoni** - Pisa

Predictors of discharge of defibrillators implanted for primary prevention in systolic heart failure: an echocardiographic and cardiac magnetic resonance study

**Gianluca Mirizzi** - Pisa

CARDIOMYOPATHY IMAGING

Gender related differences in dilated cardiomyopathy: insights from cardiac magnetic resonance

**Andrea Barison** - Pisa

Clinical and Prognostic Correlates of Volume/Time Curve at Cardiac Magnetic Resonance in Patients with Non-Ischemic Dilated Cardiomyopathy and Left Bundle Branch Block

**Alessandro Valleggi** - Pisa

Diagnosis of acute coronary syndrome with normal coronary arteries revisited: final diagnosis arrhythmogenic right ventricular dysplasia requiring ablation and defibrillator implantation

**Alberto Aimo** - Pisa

MR IMAGING

Unexpected extracardiac and non-ischaemic cardiac findings in a large cohort of patients undergoing stress perfusion cardiac magnetic resonance

**Chrysanthos Grigoratos** - Pisa

ECHO IMAGING

3D echocardiography modeling analysis of right ventricular curvature in left-sided cardiac diseases: implications on pulmonary hypertension severity

**Francesco Bandera** - Milan

Non-invasive right heart catheterization: can we really trust echocardiography?

**Vladislav Chubuchny** - Pisa

Left atrial function in patients undergoing chemotherapy: additional value of 2D speckle tracking imaging longitudinal strain

**Luca Longobardo** - Messina

VASCULAR IMAGING

One-year follow up assessment of chemotherapy-related vascular toxicity: an arterial stiffness study

**Roberta Manganaro** - Messina

The role of vascular imaging in the assessment of cardiovascular risk in children: the need for an “early” preventive control

**Pietro Scicchitano** - Bari
Fourth Session - Vascular medicine imaging

Chairmen

Mauro Ferrari (Pisa, I)
Marco Matteo Ciccone (Bari, I)

08.15 a.m. The new ESC-ESVS 2017 Guidelines on peripheral artery disease: from imaging to clinical decision making
Speaker: Marco De Carlo (Pisa, I)
Discussant: Giulio Illuminati (Milan, I)

08.45 a.m. Vasculitis: which news by the imaging
Speaker: Maria Lorenza Muiesan (Brescia, I)
Discussant: Chiara Baldini (Pisa, I)

09.15 a.m. Deep vein thrombosis in different district: the challenge for a correct diagnosis
Speaker: Michelangelo Sartori (Bologna, I)
Discussant: Danilo Giannini, Caterina Violo (Pisa, I)

09.45 a.m. Chronic and critical limb ischemia: imaging and diagnosis
Speaker: Flavio Buttitta (Pisa, I)
Discussant: Roberto Cioni (Pisa, I)
ONE SHOT UPDATES
part 1

Chairmen

Scipione Carerj (Messina, I)
Frank Benedetto (Reggio Calabria, I)

10.15 a.m. Pericardial disease
Speaker: Massimo Imazio (Turin, I)
Discussant: Alfredo Posteraro (Tivoli, I)

10.45 a.m. Methodology: the incremental value of ergo spirometric exercise echocardiography in the evaluation of patients with heart failure
Speaker: Marco Guazzi (Milan, I)
Discussant: Francesco Bandera (Milan, I)

11.15 a.m. Coffee break

11.30 a.m. Cardiac masses
Speaker: Mauro Pepi (Milan, I)
Discussant: Ketty Savino (Perugia, I)

12.00 a.m. Left atrial and ventricular function in different phisiopathologic conditions
Speaker: Matteo Cameli (Siena, I)
Discussant: Enrico Calogero (Pisa, I)

12.30 a.m. Right atrial and ventricular function in different phisiopathologic and phisiologic conditions
Speaker: Flavio D’Ascenzi (Siena, I)
Discussant: Nicola Riccardo Pugliese (Pisa, I)

01.00 p.m. Lunch
ONE SHOT UPDATES
part 2

Chairmen

Danilo Neglia (Pisa, I)
Francesco Bovenzi (Lucca, I)

HEART FAILURE

01.30 p.m.  ECHO
The potential role of echo determinants of dyssynchrony for optimization of cardiac resynchronization therapy: the quest for predicting response to CRT
Speaker: Giovanni Di Salvo (London, UK)
Discussant: Donato Mele (Ferrara, I)

02.00 p.m.  NUCLEAR
Clinical applications of myocardial innervation imaging: focus on implantable leads, ventricular assist devices, and transplant
Speaker: Arthur Scholte (Leiden, NL)
Discussant: Wanda Acampa (Naples, I)

02.30 p.m.  CMR
Outcomes of Cardiac Resynchronization: the CMR role
Speaker: Alessia Pepe (Pisa, I)
Discussant: Andrea Barison (Pisa, I)

03.00 p.m.  CONCLUSIONS And CLOSING REMARKS
FACULTY LIST

Wanda Acampa
Department of Advanced Biomedical Sciences, University "Federico II°"- Naples – Italy

Giovanni Aquaro
Magnetic Resonance Division, "Fondazione Toscana G. Monasterio", Pisa – Italy

Chiara Baldini
Department of Clinical and Experimental Medicine - University - Pisa – Italy

Francesco Bandera
Department of Cardiology - IRCCS “Policlinico San Donato" - University - Milan – Italy

Andrea Barison
Cardiology and Cardiovascular Medicine Division, “Fondazione Toscana G. Monasterio” - Pisa – Italy

Frank Benedetto
Clinical and Rehabilitation Cardiology Unit, "Bianchi-Melacrinio-Morelli" Hospital - Reggio Calabria – Italy

Leonardo Bolognese
Cardiovascular and Neurological Department, "Azienda Sanitaria Usl Sudest Toscana" - Arezzo – Italy

Francesco Maria Bovenzi
Division of Cardiovascular Medicine and Cardiac Catheterization Laboratory, “San Luca Hospital” - Lucca – Italy

Flavio Buttitta
Unit Cardio-Angiology, “Azienda Ospedaliero Universitaria Pisana” - Pisa – Italy

Filippo Cademartiri
Montreal Heart Institute, Department of Radiology - Montreal – Canada

Enrico Calogero
Department of Translational Research on New Technologies in Medicine and Surgery, "Azienda Ospedaliero Universitaria Pisana“ - Pisa – Italy

Matteo Cameli
Department of Cardiovascular Diseases, University - Siena – Italy

Davide Caramella
Chair of Radiology, University of Pisa – Italy

Scipione Carerj
Complex Cardiology Unit - University of Messina – Italy

Dante Luigi Chiappino
Imaging and Diagnostics Unit, “Fondazione Toscana G. Monasterio” - Massa – Italy

Marco Matteo Ciccone
Deto-Department of Emergency and Transplanted Organs, Section of Cardiovascular Diseases, University "Aldo Moro" Bari – Italy

Roberto Cioni
Department of Interventional Radiology, University Hospital - Pisa – Italy
Marie Annick Clavel  
Institut Universitaire de Cardiologie et de Pneumologie de Québec, “Québec Heart & Lung Institute” - Laval – Canada

Lorenzo Conte  
Cardiology Unit, "San Francesco" Hospital - Barga – Italy

Lauro Cortigiani  
Department of Cardiology, "San Luca" Hospital - Lucca – Italy

Filippo Crea  
Department of Cardiovascular Sciences, "Cattolica del Sacro Cuore" University - Rome  
Policlinico "Agostino Gemelli" - Rome – Italy

Flavio D'Ascenzi  
Department of Medical Biotechnologies Division of Cardiology University - Siena – Italy

Marco De Carlo  
Cardiac Catheterization Laboratory Cardiothoracic and Vascular Department University Hospital - Pisa – Italy

Gianluca Di Bella  
Cardiology Clinical and Experimental Department of Medicine University - Messina – Italy

Vitantonio Di Bello  
Department of Heart, Thoracic and Vascular Surgery - Sd Cardio-Angiology, University Hospital - Pisa – Italy

Giovanni Di Salvo  
Pediatric Cardiology, Echo Lab Royal Brompton and Harenfield Trust, Imperial College of London – UK

Michele Emdin  
Istituto "Scienze Della Vita", Scuola Superiore Sant' Anna - "Fondazione Toscana G. Monasterio" - Pisa – Italy

Iacopo Fabiani  
Department of Heart Thoracic and Vascular Surgery - Sd Cardio-Angiology, University Hospital - Pisa – Italy

Pompilio Faggiano  
Unit of Cardiology - Hospital - Brescia – Italy

Lorenzo Faggioni  
Unit of Diagnostic Radiology 1, University Hospital - Pisa – Italy

Francesco Fedele  
Department of Cardiovascular, Respiratory, Nefrology, Anaesthesiologic and Geriatric Sciences, University "La Sapienza" Rome – Italy

Mauro Ferrari  
Department of Heart, Thoracic and Vascular Surgery, University Hospital - Pisa – Italy

Cristina Giannini  
Sd Cath Laboratory, University Hospital - Pisa – Italy

Danilo Giannini  
SD Cardio-Angiology, University Hospital - Pisa - Italy

Alessia Gimelli  
Nuclear Cardiology Unit, "Fondazione Toscana G. Monasterio" - Cnr Research Area - Pisa – Italy

Assuero Giorgetti  
Nuclear Medicine Unit Cnr - "Fondazione Toscana G. Monasterio" - Pisa – Italy
Francesco Grigioni  
Department of Cardiology, University of Bologna – Italy - Department of Medicine, "Mayo Clinic College of Medicine", Rochester, Mn – Usa

Fabio Guarracino  
Unit of Anesthesia and Cardiothoracic Intensive Care, University Hospital - Pisa – Italy

Marco Guazzi  
Unit of Heart Failure and Cardiomyopathy - IRCCS "Policlinico San Donato" - University - Milan – Italy

Giulio Illuminati  
Department of Biomedical Sciences for Health, University Cardiology and Heart Failure Unit, IRCCS "Policlinico San Donato" - University - Milan – Italy

Massimo Imazio  
Cardiology University "Città Della Salute e della Scienza di Torino" - Cardiology Department, "Maria Vittoria" Hospital Turin – Italy

Massimo Lombardi  
Multimodality Cardiac Imaging Section - IRCCS "Policlinico San Donato" - University - Milan – Italy

Massimo Maccherini  
Unit of Cardiothoracic Surgery, University Hospital "Santa Maria alle Scotte" - Siena – Italy

Paolo Marino  
Clinical Cardiology and Department of Cardiovascular Diseases, Hospital "Maggiore della Carità" - Novara – Italy

Chiara Maria Mazzanti  
Genomics Group - "Fondazione Pisana per La Scienza" - Pisa – Italy

Donato Mele  
Unit of Cardiology, "S. Anna" Hospital - Ferrara – Italy

Marco Metra  
Department of Cardiology and UTC - Hospital “Spedali Civili” - Brescia – Italy

Maria Lorenza Muiesan  
Internal Medicine - University - Department of Medicine “Spedali Civili” - Brescia – Italy

Danilo Neglia  
Cardiology and Cardiovascular Medicine Division, “Fondazione Toscana G. Monasterio” Institute "Scienze Della Vita", Scuola Superiore Sant' Anna - Pisa – Italy

Iacopo Olivotto  
Referral Center for Cardiomyopathies, "Careggi" University Hospital - Florence – Italy

Filippo Ottani  
Cardiology Unit "G.B. Morgani - L. Pierantoni", Hospital - Forlì – Italy

Emilio Pasanisi  
Cardiology and Cardiovascular Medicine Division, "Fondazione Toscana G. Monasterio" - Pisa – Italy

Claudio Passino  
Instituto "Scienze Della Vita", Scuola Superiore Sant' Anna - "Fondazione Toscana G. Monasterio" - Pisa – Italy

Roberto Pedrinelli  
Department of Surgical, Medical, Molecular and Critical Pathology, University Hospital - Pisa – Italy
GENERAL INFORMATION

Meeting venue
Polo Didattico Fibonacci - Università degli Studi di Pisa
Aula Magna Fratelli Pontecorvo
Largo Bruno Pontecorvo - Pisa - Italy

Secretariat during the Meeting
The Secretariat will be open as follows:
Thursday, from 02.00 p.m. to 07.30 p.m.
Friday, from 07.30 a.m. to 05.30 p.m.
Saturday, from 07.30 a.m. to 03.30 p.m.

Official language
The official language of the Congress will be English. Simultaneous translation service will not be provided.

CME Accreditation
The application for CME accreditation has been submitted only for Italian physicians. The CME credits will be awarded only after full attendance of all sessions. Full registration form and learning & assessment questionnaires are compulsory.

Registration
The registration is free of charge.

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or
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For Italian partecipants:
Stefania Bracci e.mail: s.bracci@datre.it, mobile cell +39 388 1113486
For foreign partecipants:
Benedetta Manetti e.mail: b.manetti@datre.it, mobile cell +39 340 1755098

Technical facilities
A business center with PC (Powerpoint for Windows) and Overhead will be at disposal to check presentations. It is essential that speakers bring their presentation to the business center at least one hour before the session starts.
The center will be open as follows: Thursday, from 02.00 p.m. to 07.00 p.m.,
Friday from 07.30 a.m. to 05.30 p.m., Saturday, from 07.30 a.m. to 3.30 p.m.

Lunches and coffee breaks
Lunches and coffee breaks will be served in the Meeting area.