

The course will offer:

Lectures – Up to 162 hours

Personal attendance – Minimum 120 cases

Hands-on scanning – 36 h

Clinical reporting – Minimum 150 cases

Specific clinical application project

Log book to be kept of cases attended

FTGM Faculty

Lamia AIT ALI' MD, Ph.D
Giovanni Donato AQUARO MD
Andrea BARISON MD, Ph.D
Valerio BARRA, TR
Michelangelo BERTASI, TR
Daniele DE MARCHI TR
Filomena FABRIZIO Nurse
Pier Luigi FESTA MD
Petra KEILBERG TR
Antonella MELONI Ph.D
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Fondazione Toscana
Gabriele Monasterio



Three-months training course in CMR

1 Aprile - 30 giugno 2014

Magnetic Resonance Lab
Area della Ricerca CNR di Pisa
Via Moruzzi, 1

This program is intended for cardiologists and radiologists wishing to gain in-depth knowledge of and experience in the principles of cardiac MR, its practical implementation in a clinical environment, and reading and interpretation of CMR images. In our MR Lab more than 2500 patients are clinically scanned every year in the whole field of the cardiology. Training is sufficient to obtain level 2 accreditation within 3 months.

Objective

This program is intended for cardiologists and radiologists wishing to gain on basic cardiovascular magnetic resonance.

Setting

The CMR Unit in Pisa is an international referral centre, performing more than 2500 cardiovascular CMR studies per year covering a wide range of clinical issues.

The fee will cover:

- Tutor assistance
- Hands on CMR acquisitions and analysis
- Case reading
- Stress CMR and multimodality lectures
- Teaching material
- Lunch ticket
- Social dinner
- Attendance certificate



Cost

€ 4500 euros + 22% VAT for each physician, € 4500 + 22% VAT for each accompanying technical radiologist or nurse Maximum 2 participants. CME credits will be provided if required with an extra-fee of € 1000 + 22% VAT for each participant.

Location

Magnetic Resonance Lab
Area della Ricerca CNR di Pisa
Via Moruzzi, 1 Pisa, Italy



Topics to be covered include:

Filomena Fabrizio, Nurse – 2 h

MRI Safety
MRI patient's preparation (basal and stress)

Antonella Meloni, PhD – 7 h

Basic principles of MRI
MRI hardware
Image quality (SNR, CNR and resolution)
Image artefacts
Heart, liver and pancreatic T2* MR assessments

Vincenzo Positano, MsC - 7 h

Introduction to CMR image analysis and DICOM standard
Heart function assessment by CMR
3D visualization
Flow analysis
Myocardial perfusion analysis
LGE image analysis
CMR relaxometry



Daniele De Marchi, TR - 7 h

Sequence design
K-space strategies and rapid imaging
Quality in CMR

Petra Keilberg, TR - 7 h

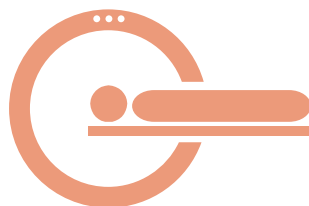
Cardiac anatomy, imaging planes and appearances
Quality in MR
CMR Acquisition protocol: Thalassemia, Stress, Cardiomyopathy

Valerio Barra, TR - 1h

CMR Acquisition protocol: myocarditis

Michelangelo Bertasi, TR - 1 h

CMR Acquisition protocol: ARVC



Giovanni D Aquaro, MD – 9 h

Physic for dummies
Ventricular volumes, mass and function
Myocardial perfusion imaging
Contrast medium and LGE quantification
ARVC
Stress MRI using dobutamine
Cardiac tumor and pericardial masses

Andrea Barison, MD, PhD – 5 h

T1 mapping
Laminopathies
Cardiac Amyloidosis
Thoracic Aorta



Alessia Pepe, MD, PhD – 9 h

Stress MRI using dipiridamole and adenosine
Iron overload cardiomyopathy
Liver and pancreatic iron quantification by MR
T1, T2, T2* map
Multimodality imaging comparison in CAD
CMR in LV non compaction
CMR in rheumatologic disease
CMR in oncology



Giancarlo Todiere, MD – 6 h

Hypertrophic cardiomyopathies
Myocarditis
Ischemic CMP
LGE in non ischemic cardiomyopathy: prognostic value

Pierluigi Festa, MD, PhD and Lami Ait Ali, MD – 10 h

Congenital heart disease: an overview
Bicuspid aortic valve and CMR study of aortic wall
Aortic coarctation and aortic arch anomalies
Dilatation of the right ventricle and anomalous pulmonary venous return
Post repaired Tetralogy of Fallot
Systemic right ventricle
Functionally Univentricular heart CMR evaluation pre and post palliation
CMR in congenital heart disease: Tips and tricks
CMR in pre and post interventional cardiac catheterization in congenital heart disease
Cases presentation of congenital heart diseases