



**University of Pisa Summer School
Pisa, July 1st – July 5th 2024**



**Cardiovascular Summer School: Clinical & Experimental –
IX Edition**

Course Director: Prof. Raffaele De Caterina

**Scientific Committee: Prof. Rosalinda Madonna, Prof. Doralisa
Morrone, Prof. Marco De Carlo, Prof. Carlo Palombo,
Dr. Luna Gargani, Dr. Riccardo Liga, Dr. Gabriele Masini,
Dr. Alessandro Sticchi, Dr. Matteo Mazzola**

**School of Medicine
Department of Surgical, Medical and Molecular Pathology and
Critical Care Medicine
University of Pisa**

**VENUE: Polo Didattico Piagge, University of Pisa
Via Giacomo Matteotti 11, 56124**

Program

Day 1 – July 1st 2024

8:30-9:30 Registration of participants

9:30-10:00 The international promotion of teaching activities at the University of Pisa
Giovanni Federico Gronchi, University of Pisa

EPIDEMIOLOGY, RISK STRATIFICATION AND PREVENTION OF CARDIOVASCULAR DISEASE

10:00-10:30 Introduction to the course. The global burden of cardiovascular disease
Raffaele De Caterina, University of Pisa

10:30-11:00 Coffee break

11:00-11:45 Atherosclerosis 2024: pathophysiological insights and new perspectives
Giovanni Camici, University of Zurich

11:45-12:30 The exposome in ischemic heart disease: beyond traditional risk factors
Giampaolo Niccoli, Department of Medicine, University of Parma

12:30-13:30 Lunch

PRINCIPLES OF CARDIOVASCULAR PHYSIOLOGY

13:30-14:30 Left and right heart mechanics
Fabio Anastasio Recchia, Institute of Clinical Physiology, National Research Council, Pisa

14:30-15:30 Myocardial metabolism
Paolo Camici, Vita-Salute University and S. Raffaele Hospital, Milan

15:30-16:00 Tea break

16:00-17:00 Keynote Lecture. Microvessel structure and function: from bench to bedside
Enrico Agabiti Rosei, University of Brescia

17:00-18:00 Exercise physiology: integrative mechanisms and impact on health assessment and cardiovascular rehabilitation
Claudio Passino, Scuola Superiore S. Anna, Pisa

Day 2 – July 2nd 2024

ISCHEMIC HEART AND CEREBROVASCULAR DISEASE: STATE OF THE ART AND PERSPECTIVES

9:00-10:00 Ischemic heart disease and atrial fibrillation: pathophysiological background and clinical results
Raffaele De Caterina, University of Pisa

10:00-11:00 Not all atherosclerotic plaques were born equal
Filippo Crea, Catholic University, Rome

11:00-11:30 Coffee break

11:30-12:30 Keynote Lecture. Redefining ischemic heart disease: from “coronary stenosis” to myocardial ischemia
Mario Marzilli, University of Pisa

12:30-13:30 Carotid plaque vulnerability: the Carotid Artery Multi-modality imaging Prognostic (CAMP) study
Luna Gargani, University of Pisa

13:30-14:30 Lunch

ACUTE AND CHRONIC ISCHEMIC HEART DISEASE: DIAGNOSIS AND THERAPY

14:30-15:30 Myocardial ischemia beyond coronary stenosis
Doralisa Morrone, University of Pisa

14:30-15:30 Principles of diagnosis and risk stratification of chronic ischemic heart disease
Danilo Neglia, Fondazione Toscana Gabriele Monasterio, Pisa

15:30-16:30 From the IV Universal Definition of Myocardial Infarction to treatment of acute coronary syndromes
Marco De Carlo, University of Pisa

16:30-17:00 Tea break

17:00-18:00 Principles of personalized treatment of chronic ischemic heart disease: OMT, PTCA, surgery
Paolo Ameri, University of Genoa

DAY 3 – July 3rd 2024

PERSPECTIVES IN HEART FAILURE RESEARCH

9:00-10:00 Phenotypes and new therapies in heart failure: sacubitril-valsartan, SGLT2 inhibitors, vericiguat
Riccardo Liga, University of Pisa

10:00-11:00 New approaches to treatment of mitral and tricuspid valve disease
Marco De Carlo, University of Pisa

11:00-11:15 Coffee break

11:15-12:00 Pulmonary hypertension: definition, classification, pathophysiology and treatment
Rosalinda Madonna, University of Pisa

12:00-12:45 Lung ultrasound: pathophysiological background and clinical implications
Luna Gargani, University of Pisa

12:45-13:30 Cardiopulmonary support in acute heart failure
Fabio Guarracino, Azienda Ospedaliero-Universitaria Pisana

13:30-14:30 Lunch

14:30-19:00 Informal discussions between Participants and Faculty about the themes of the SummerSchool

20:00 Social Dinner

DAY 4 – July 4th 2024

UPDATES IN CARDIOVASCULAR THERAPY

- 9:00-10:00 Principles of hemostasis: platelets, coagulation and fibrinolysis, and site of action of new or forthcoming antithrombotic drugs
Domenico Prisco, University of Florence
- 10:00-11:00 Keynote Lecture. Aspirin: yesterday, today and tomorrow
Carlo Patrono, Catholic University, Roma
- 11:00-11:30 Coffee break
- 11:30-12:30 GLP-1 agonists and lipid-lowering agents for cardiovascular disease management
Angelo Avogaro, University of Padua
- 12:30-13:30 Iron therapy in heart failure: what evidence so far?
Gabriele Masini, University of Pisa
- 13:30-14:30 LUNCH

THE HEART IS NOT AN ISLAND

- 14:30-15:30 Keynote lecture. Promoting health and longevity through diet – the pathophysiological background of the CAMP-ACTIVE study
Luigi Fontana, University of Sydney
- 15:30-16:30 Keynote lecture: Central nervous oscillators, sleep and sleep apnea: which impact on the CV system?
Gianfranco Parati, University of Milano-Bicocca
- 16:30-17:00 Tea break
- 17:00-17:40 Cardio-renal damage in type 2 diabetes
Stefano Del Prato, University of Pisa
- 17:40-18:20 Adiposity and the cardiovascular system: not only matter of fat
Ferruccio Santini, University of Pisa
- 18:20-19:00 “Frailty” in cardiovascular health and disease
Andrea Ungar, University of Florence

DAY 5 – July 5th 2024

FOCUS ON VALVULAR HEART DISEASE AND CARDIOMYOPATHIES

9:00-09:45 Transcatheter aortic valve implantation (TAVI): to whom, when and why
Alessandro Sticchi, University of Pisa

09:45-10:30 Renal denervation for treatment of hypertension
Stefano Taddei, University of Pisa

10:30-11:00 Coffee break

11:00-12:00 New insights in hypertrophic cardiomyopathy
Jacopo Olivotto, University of Florence

12:00-13:00 Restrictive cardiomyopathies: diagnosis and treatment
Michele Emdin, Scuola Superiore Sant'Anna, Pisa

13:00-13:45 Keynote Lecture. Atrial cardiomyopathy
Lin Yee Chen, University of Minnesota, USA

13:45-14:30 Lunch

IMAGING AND STRUCTURAL HEART DISEASE

14:30-15:15 Imaging of the heart: nuclear cardiology from the origin to the XXI century
Paolo Marzullo, Fondazione Toscana Gabriele Monasterio, Pisa

15:15-16:15 Advanced imaging of the heart and coronary vessels: principles of cardiac magnetic resonance and angio-computed tomography
Giovanni Donato Aquaro, University of Pisa

16:15-16:45 Tea break

PERSPECTIVES IN ARRHYTHMIAS

16:45-17:30 Risk stratification and prevention of cardiac sudden death in the young
Stefano Viani, Azienda Ospedaliero-Universitaria Pisana

17:30-18:15 Perspectives in arrhythmia ablation research: new diagnostic tools, new devices, clinical improvement
Giulio Zucchelli, Azienda Ospedaliero-Universitaria Pisana

18:15-19:00 The enigma of cardioinhibitory syncope: are there alternatives to pacing?
Marisa Carluccio, Azienda Ospedaliero-Universitaria Pisana

CLOSING REMARKS

Raffaele De Caterina, Carlo Palombo, University of Pisa